



POLLINATING PROSPERITY

A NEW APPROACH TO ECONOMIC DEVELOPMENT IN SANTA FE, NEW MEXICO

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EXECUTIVE REPORT

Santa Fe, New Mexico, has long been a crossroads for diverse cultures, languages, ethnicities, and races. It's a place that has birthed one of the most innovative regions in the United States renowned worldwide for its unique arts, music, crafts, and cuisine. But Santa Fe County (which includes the city of Santa Fe) also confronts many challenges. It has huge socio-economic divides, large pockets of poverty, a high cost of living, a struggling school system, and a beleaguered business community. Despite a series of outstanding local economic development initiatives by many state, county, city, private, and nonprofit institutions, the economy of Santa Fe remains stagnant.

This report aims to provide a fresh perspective on how economic development in Santa Fe can make a quantum leap forward. It makes a case for grounding economic development in four integrated strategies and suggests five actionable steps for implementing these strategies.

RECOMMENDED STRATEGIES

- A sustainable economic development plan should be grounded, first and foremost, in a deep understanding of "place." For Santa Fe to develop a strong economic vision and sustainable path into the future, it is critical for planners to develop an understanding of their locality's uniqueness and make "place" a critical driver for economic development.
- Consistent with an understanding of Santa Fe's unique attributes, a successful economic development strategy should undertake leakage analysis to identify opportunities for meeting local demand with new local production (what economists call "import replacement"). Using an economic model called IMPLAN, we calculate that about 48 cents of every dollar currently spent by Santa Fe residents leave the economy and do no economic good. If even 10% of that outflow were recaptured by new or expanded local business, the County could create almost 4,700 new jobs, more than enough to employ the roughly 4,000 residents now unemployed. Additionally, this shift would raise incomes by \$213 million and expand the state and local tax base by \$35 million.
- A key challenge for import replacement is the finance needed to start or expand local businesses. Even though 83% of the jobs in Santa Fe County are in locally owned private businesses, most banking capital in the County and nearly all of other long-term capital (held in the form of stocks, bonds, mutual funds, pension funds, and insurance funds) do not touch these businesses. This means that Santa Fe residents are systematically overinvesting in Wall Street and underinvesting in their community. We review a number of modest efforts in the region that already have been undertaken to localize finance, and suggest ways to dramatically increase the flow of capital to worthy Santa Fe businesses.
- Given the limited resources of the economic-development establishments of Santa Fe city and county, it is essential that every dollar expended leverage as much economic-development activity as possible through what we call "pollinator" businesses. Pollinators are economic-development programs led by the private sector and organized in the form of cash-flowing businesses. There are already several effective pollinators operating in Santa Fe, but their numbers and activities could and should be substantially expanded.

RECOMMENDED ACTIONS

To implement these strategies, the County and City of Santa Fe should do the following:

- 1. **Increase public participation in local economic development planning through two innovations:** a joint blue-ribbon panel to produce each year a series of recommendations about initiatives and policies to strengthen the local business community; and an annual **State of Santa Fe Report** on the overall health of the local economy.
- 2. **Develop new metrics consistent with the theory and practice of place-based economic development and import replacement.** These should be integrated into the annual **State of Santa Fe Report**.
- 3. **Mobilize more Santa Fe residents and institutions to invest locally by creating an online database of local investment opportunities in the region.** This site would only provide information about investment opportunities—and not facilitate any transactions—thereby staying within the bounds of existing securities laws.
- 4. **Organize every business sector to develop strategies for import replacement.** The Green Chamber of Commerce is now engaging the hospitality industry in developing very specific import-replacement strategies. Its work involves carefully reviewing the purchasing and investment habits of existing companies. Similar initiatives are needed in every major industry in Santa Fe.
- 5. **Grow more pollinators through a dedicated fund, financed by both public and private money.** Every dollar invested in local business pollinators has the potential to multiply into many new public and private dollars locally. Because these pollinator business models are relatively new, however, finding conventional investors to underwrite them is challenging. Public funds that seed their start-up, supplemented by private investment, could make a huge difference.

INTRODUCTION

ABOUT THIS REPORT

To grow the health and wealth of the Santa Fe community, Impact Network Santa Fe commissioned a mapping project in 2016 for assessing the current state of Santa Fe's local economy. The mission was to coalesce efforts and generate increasing public and private investment in sustainable, local economic growth.

Key stakeholders were engaged, including: City and County leadership and economic development staffs, members of the Sustainable Santa Fe Commission, local business organizations (e.g. Santa Fe Green Chamber of Commerce), entrepreneurial support organizations, career and job training institutions (e.g. Santa Fe Community College), and local foundations and private investors interested in equity or finance investing for multi-capital community impact.

This report represents the culmination of this work. Its purpose is threefold:

- To shine a spotlight on the unique assets that underlie Santa Fe's potential for economic development;
- To offer a set of new, coherent strategies for economic development; and
- To identify what exists and what needs to get started to implement these strategies.

This report also addresses some cogent issues raised in a recent study by the League of Women Voters¹ and complements two recently released City publications related to economic development:

- The City of Santa Fe's 2017 Economic Development Crossroads², recently released by the City of Santa Fe's Office of Economic Development (OED) in response to a City Council Resolution (2016-75); and
- Draft Working Group Priority Recommendations for Community Outreach³, recently released by the City's Sustainable Santa Fe Commission to outline a 25-year sustainability plan.

¹ Bruce Krasnow, "Analysis of City Economic Grants Show Uneven Returns," Santa Fe New Mexican, May 22, 2017.

² http://www.santafenm.gov/economic_development

³ http://www.santafenm.gov/sustainable_santa_fe

OVERVIEW

Santa Fe, New Mexico, has long been a crossroads for diverse cultures, languages, ethnicities, and races. It's a place that has birthed one of the most innovative regions in the United States renowned worldwide for unique arts, music, crafts, and cuisine. Its economy remains largely defined as a tourist destination, but it is also the state capital and home to its many creative industries.

Santa Fe County (which includes the city of Santa Fe) also confronts many challenges. It has huge socio-economic divides, large pockets of poverty, a high cost of living, a struggling school system, and a beleaguered business community. Despite a series of outstanding economic development initiatives by many state, county, city, private, and nonprofit institutions, the economy of Santa Fe remains stagnant. In 2016, a group of us decided to help these institutions radically rethink the direction of economic development in the city and county.

Through research, interviews, and meetings over a year, we developed what we hope proves to be a fresh perspective on how economic development in Santa Fe can become more successful. We decided to frame our work around Santa Fe County, in part because county data are more accurate than city data and in part because we wanted to provide a slightly regional perspective.

LOCAL GENERATES MORE

Over the past generation, economic development throughout the world has largely defined its mission as how to "attract and retain business." And to accomplish this, regions have taken both "high road" and "low road" approaches. The "high road" approach includes providing a highly skilled and productive workforce and extensive infrastructure (transportation nodes, high-speed internet, and so forth). The "low road" approach lowers business costs by such means as breaking unions and rolling back environmental laws. Some regions also have added incentives to attract and retain business through special grants or tax breaks, and in the United States, these state and local incentives are estimated to exceed \$80 billion per year. Every region in the world is now bidding for the privilege of having an office, branch factory, or retail outlet from a powerful global corporation.

While New Mexico has embraced this paradigm, often with controversial corporate attraction deals with companies like Intel, the city and county of Santa Fe largely gave up this practice more than a decade ago. In 2004 the city invested nearly \$100,000 into what became known as the "Angelou Plan," and one of its recommendations was that the city stop actively recruiting companies. The city largely followed this advice, although it does respond to inquiries by outside companies interested in moving to Santa Fe and actively encourages film companies to take advantage of the state's related incentives.

Santa Fe's decision to focus on local business was and remains smart because there's a growing body of evidence that regions with higher densities of local business have superior economic performance. For example:

- A 2010 study appeared in the *Harvard Business Review* under the headline "More Small Firms Means More Jobs." The authors wrote, "Our research shows that regional economic growth is highly correlated with the presence of many small, entrepreneurial employers—not a few big ones." The authors further argued that the major preoccupation of economic developers how to attract global companies is fundamentally wrong-headed. "Politicians enjoy announcing a big company's arrival because people tend to think that will mean lots of job openings. But in a rapidly evolving economy, politicians are all too likely to guess wrong about which industries are worth attracting. What's more, large corporations often generate little employment growth even if they are doing well."
- Another study published shortly thereafter in the *Economic Development Quarterly*, a journal long supportive of business attraction practices, similarly finds: "Economic growth models that control for other relevant factors reveal a positive relationship between density of locally owned firms and per capita income growth, but only for small (10-99 employees) firms, whereas the density of large (more than 500 workers) firms not owned locally has a negative effect."⁵
- A paper published in 2013 by the Federal Reserve in Atlanta, which performed a regression analysis of counties across the United States, found statistically significant "evidence that local entrepreneurship matters for local economic performance . . . [T]he percent of employment provided by resident, or locally-owned, business establishments has a significant positive effect on county income and employment growth and a significant and negative effect on poverty..."

But beyond focusing on local business, the city and county have struggled to define a coherent approach to local economic development. The result is that Santa Fe's economic developers feel overwhelmed. In a recent report called "2017 Economic Development Crossroads," the city Office of Economic Development (OED) wrote, "It seems to be widely believed that OED is responsible for education, workforce development, infrastructure, training, business support, business recruitment, marketing, and providing staff as community liaisons for all issues that affect business. Although all of these are important aspects of economic development, not all of them can (or should) fall within the purview of the OED."

This report aims to help the region's elected officials and economic developers sharpen their efforts to build a robust local economy ecosystem through a targeted set of recommended strategies and actionable steps, each of which will be elaborated in the sections that follow:

⁴Edward L. Glaeser and William R. Kerr, "The Secret to Job Growth: Think Small," Harvard Business Review, July-August 2010.

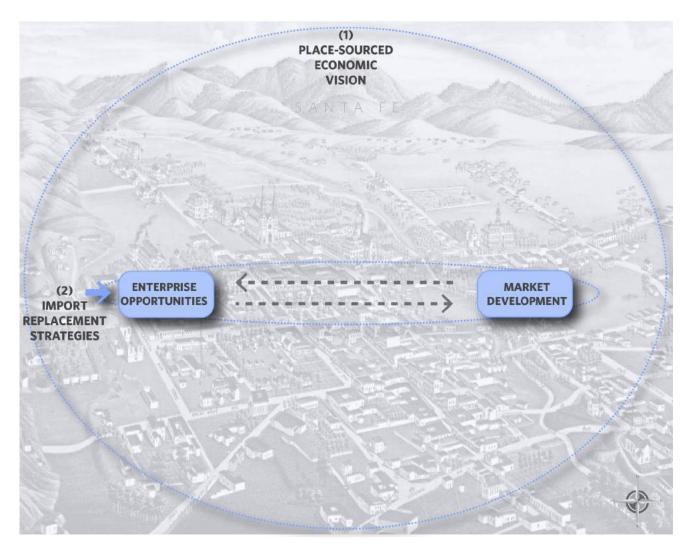
⁵ David A. Fleming and Stephan J. Goetz, "Does Local Firm Ownership Matter?," Economic Development Quarterly, 2011.

⁶ Anil Rupesingha, "Locally Owned: Do Local Business Ownership and Size Matter for Local Economic Well-Being?," monograph, August 2013.

RECOMMENDED STRATEGIES

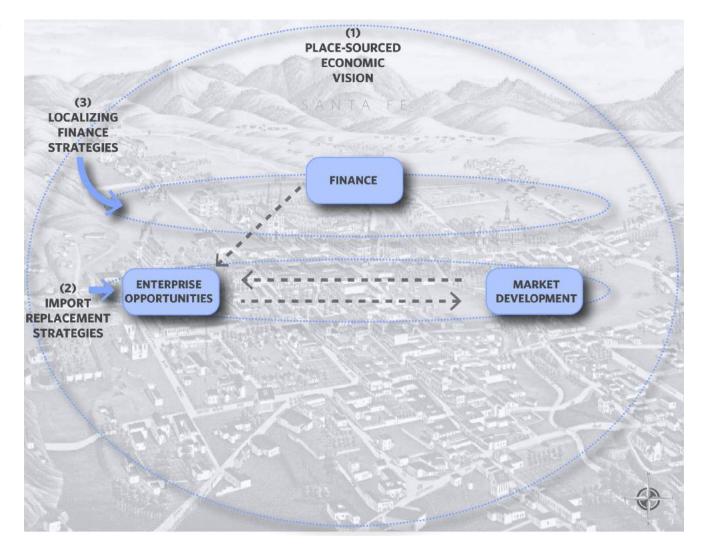
(1) Place-Sourced Economic Vision. Any economic development initiative must be grounded, first and foremost, in the unique crazy-quilt of the multiple subcultures in Santa Fe. There are ripe sector-related business opportunities arising from Santa Fe's place, traditions, and skills. This underscores not only why recruitment efforts are counterproductive (outsiders are likely to be out of synch with these subcultures) but also why economic development should support many kinds of local business, rooted in many different sub-communities. Efforts to identify just one or two "globally competitive clusters of business," which is the strategy usually embraced by economic developers, are doomed to failure.

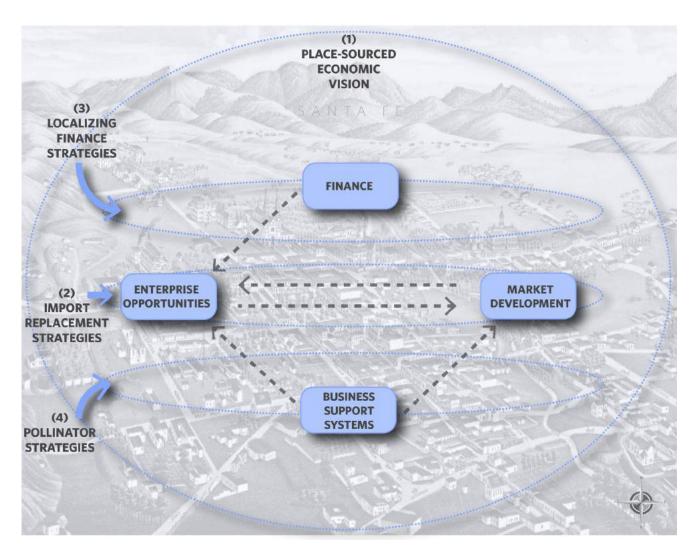




(2) Import Replacement. With a clear vision for a place-based economy, economic development strategy should then be rooted in leakage analysis, which identifies outflows of purchasing dollars. It turns out that Santa Fe County has an annual trade deficit of nearly \$2.5 billion per year. While greater exports can help reduce this deficit, the more important and available solution is to reduce imports through more local consumption. About 48 cents of every dollar spent by Santa Fe residents leaves the economy and do no economic good. If even 10% of that outflow were recaptured in new or expanded local business, the County could gain almost 4,700 new jobs, more than enough to employ the roughly 4,000 residents currently unemployed. Additionally, the shift would raise incomes by \$213 million and the state and local tax base by \$35 million from additional business taxes. This shift can be made possible through expansions of local professional services, local food, local financial services, local retail and wholesale, and local construction.

(3) Localized Finance. A key challenge for the business expansions needed for import replacement is finance. Even though 83% of the jobs in Santa Fe County are in locally owned private businesses, most of the banking capital in the County and nearly all of other long-term capital (held in the form of stocks, bonds, mutual funds, pension funds, and insurance funds) do not touch these businesses. This means that Santa Fe residents are systematically overinvesting in Wall Street and underinvesting in their community. We review a number of modest efforts to localize finance and suggest many ways to dramatically increase the flow of capital to local business.

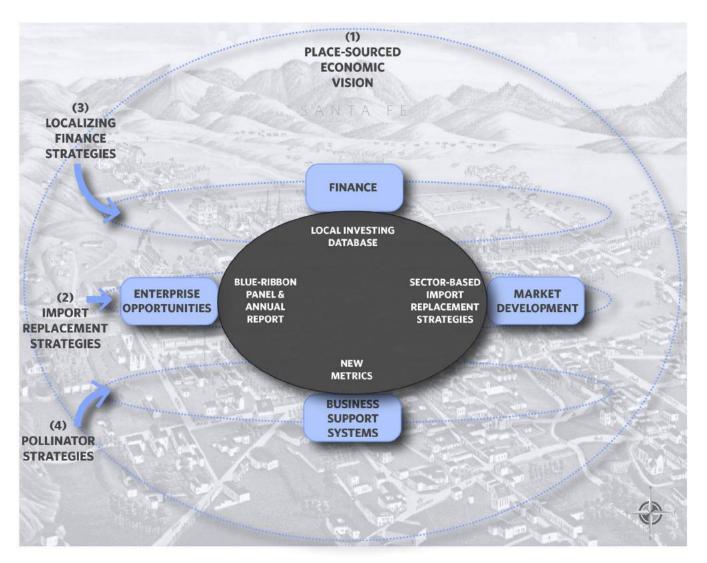




(4) A Pollinator Approach. Given the limited resources of the economic-development establishments of Santa Fe city and county, it is essential that every dollar expended leverage as much economic-development activity as possible. The key to doing this is to invest in "pollinator" businesses. Pollinators are economic-development programs led by the private sector and organized in the form of cash-flowing businesses. There are already several interesting pollinators operating in Santa Fe already, but their numbers and activities could and should be substantially expanded.

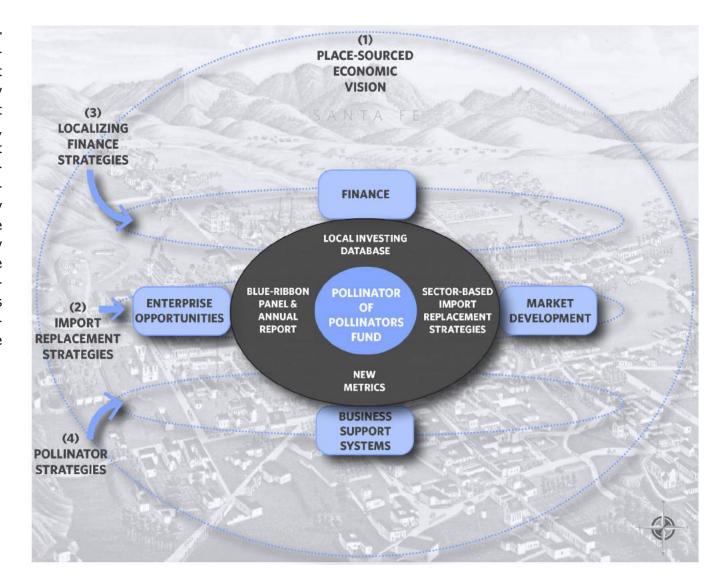
RECOMMENDED ACTIONS

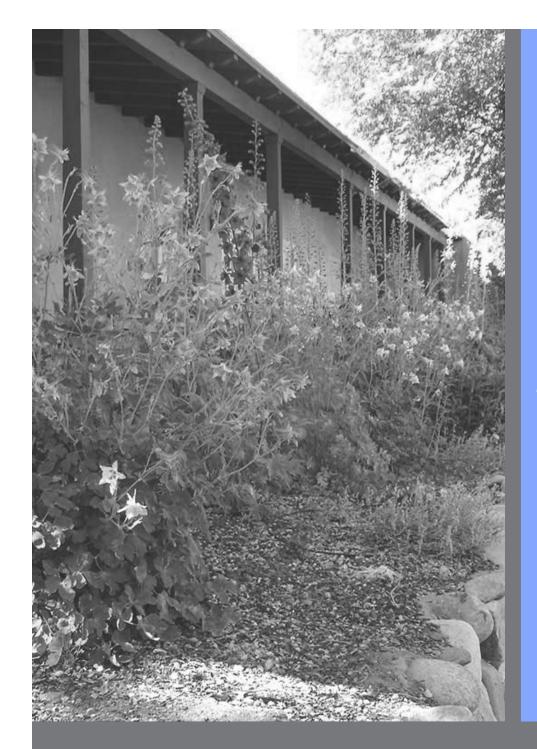
The City and County can leverage and accelerate the implementation of these above-mentioned strategies through four relatively inexpensive actions that can be done within the existing budgets of the city and county economic development offices. They are:



- (1) Increase public participation in economic development planning through two innovations: a joint blue-ribbon panel to produce each year a series of recommendations about initiatives and policies to strengthen the local business community; and an annual *State of Santa Fe Report* on the overall health of the local economy.
- (2) Develop new metrics consistent with the theory and practice of import replacement. These should be integrated into the annual *State of Santa Fe Report*.
- (3) Mobilize more residents and institutions to invest locally by creating an online database of local investment opportunities in the region. This site would only provide information about investment opportunities—and not facilitate any transactions—thereby staying within the bounds of existing securities laws.
- (4) Organize every business sector to develop strategies for import replacement. The Green Chamber of Commerce is now engaging the hospitality industry in developing very specific import-replacement strategies. Its work involves carefully reviewing the purchasing and investment habits of existing companies. Similar initiatives are needed in every major industry in Santa Fe.

(5) Create a fund that pollinates pollinators. By definition, pollinator businesses are those entities that can exert significant leverage over the quantity and quality of economic development in Santa Fe. Incubators, maker spaces, buy-local debit cards, local investment portals, and so forth all have the capacity to support a wide range of import-replacing local businesses. Every dollar invested in pollinators like these has the potential to multiply into many new dollars locally. But because these pollinator business models are relatively new, finding conventional investors to underwrite them is challenging. Public funds that seed their start-up phase could make a huge difference.

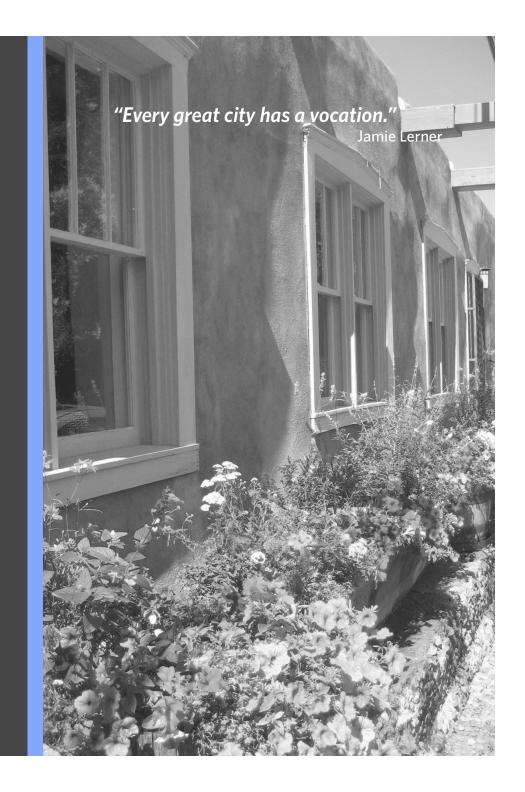




"When a community awakens to its uniqueness, it taps into a potency that comes from operating authentically, from the core of who it is. This potency can be drained away by conventional planning efforts, which tend to destroy wholeness by breaking problems into their component parts in order to solve them. This is as true of sustainability planning, with its model projects and rating systems, as it is of economic development efforts or infrastructure overhauls"

- Ben Haggard & Pamela Mang 7

O1
THE
UNIQUENESS
OF SANTA FE



Santa Fe is a city with an incredible mythos and well-known brand. It is widely lauded as a center for creativity, a progressive city with a high livability index, and a world-class destination for cultural heritage, arts, and natural enchantment. Yet this brand did not grow randomly. And for Santa Fe to develop a strong economic vision and sustainable path into the future, it is critical for planners never to take this uniqueness for granted. Instead, they should develop a deep understanding of the locality's uniqueness and make it a critical driver for economic development.

What makes Santa Fe and its region so unique? Anyone can easily point to the preserved adobe architecture, the historic plaza, the rich Native Pueblo and Hispanic cultural traditions and art, the unique Nuevo Mexico cuisine. Yet all of these are really just outer manifestations of deeper living patterns, values, and cultural dynamics. Through historical research and contemporary interviews, our team identified three unique underlying patterns of place.

Before we discuss these, however, we wish to underscore that we view these patterns as suggested starting places for a larger collective dialogue. We invite readers to develop their own experiential insights into what they believe makes Santa Fe unique, and sharpen the ideas presented below.

PATTERN ONE: CREATIVE CONTRASTS

The Santa Fe region has always been an incredible meeting place for diverse peoples, ideas, cultures, and natural systems, and the contrasts at the edges of these diverse entities have and continue to spark profound creativity.

The ecology of Santa Fe can be defined as a place where the southern tail of the Rocky Mountains from the north meets the distal reaches of the Chihuahuan and Sonoran deserts from the south; where the Great Plains to the east meet the unique Colorado Plateau and Basin and Range ecosystems of the west. Each of these ecological systems has provided a home for unique natural resources, seeds, plants, animals, peoples, and traditional cultures. Santa Fe has always been a place where these unique ecologies come together for trade, exchange, and innovation.

Medieval Spanish is still spoken in the region, sprinkled with archaic Arabic words alongside English and Native ones. An atomic particle accelerator stands atop a mesa whose cliffs are covered with ancient cliff dwellings and petroglyphs and attracts rock climbers from across the region.

⁷Ben Haggard & Pamela Mang, Regenerative Development and Design (Hoboken, NJ: Wiley, 2016): 61.

Santa Fe is not so much a melting pot as a place where distinct, contrasting edges meet and interact. Stark contrasts are juxtaposed here between land and sky, between light and shadow, between distinctive layers of cultures and peoples. If you look around the Santa Fe Plaza today, you see not so much a blurring of heritages as a creative juxtaposition of Native American art and artists, western pioneer storefronts, and Spanish hacienda architecture. It is easy to see not only cowboys and Indians, but also artists, bankers, hippies, nuclear scientists, oilfield workers, farmers, film stars, old families, and recent immigrants side by side. Anthropologist Michael F. Brown characterized Santa Fe in the mid-1990s as "a town where urban cowboys from Houston belly up to the bar next to past-life regression therapists from Marin County."

This pattern is readily apparent in Santa Fe's art sector. Santa Fe's now renowned art market—which runs neck and neck with Los Angeles for second largest US art market, behind only New York City—began to take shape in 1917 through the deliberate cultivation by the Museum of New Mexico. Particularly noteworthy was the Museum's open door policy, which at the time was a revolutionary model "for exhibiting both indigenous Native American and Hispanic artists alongside the work of recognized New York painters and sculptors." This bringing together of contrasting cultural and artistic styles in an egalitarian format spurred an art "renaissance" in the 1920's, which in turn led to the creation of new art styles and movements.

A more recent example of this pattern can be seen in the rapid success of the International Folk Art Festival. Based on the Santa Fe's rich history of hosting and celebrating the meeting of diverse cultures, ideas, and art, it is no accident that this festival, which invites, features, and fosters the co-interaction with and between place-based folk artists from around the world, was an almost instant success.

This pattern of appreciating and allowing for the creative cross-pollination of contrasting cultures can be seen in Santa Fe's urban land-scape. The Santa Fe Plaza as a diverse meeting place of cultural edges has already been noted, but it is interesting to point out the history behind the Plaza itself. In the late 19th century, as increasing numbers of Anglo settlers began to migrate to the Southwest, a common pattern was to set up a "New Town" commercial district separate from but proximate to the "Old Town" Hispanic center. In Santa Fe, however, the downtown developed as an integrated Hispanic and Anglo commercial and residential center. This ability to creatively integrate diverse edges is part of what set Santa Fe apart from some of its neighbors.

And in the more recent revitalization effort of the Guadalupe Railyard District, as implicated in its very name, we can see the rich results from the meeting of two distinct cultural eras: the industrial railroad era, and the area's Hispanic family-based agricultural roots. This is reflected today in the industrial architecture of a contemporary train station juxtaposed with the farmers' market, community rain-harvest irrigated gardens, and nearby *El Museo* Hispanic cultural center.

⁸ http://online.nmartmuseum.org/nmhistory/growing-new-mexico/tourism/history-tourism.html

PATTERN TWO: CULTURAL HAVEN - A SEEDBED FOR INNOVATION AND REINVENTION

As Chris Wilson writes, "When a person stands at the heart of the plaza and looks to the sacred mountains on the horizon, 30 to 100 miles away, he or she takes in the bounded order of the world...This centering of a community in a living, breathing plaza, rooted in the land, is a powerful image of local culture."

Geographically speaking, the Santa Fe region is a remote, semi-isolated, and protected high-desert basin, hemmed by the Sangre de Cristo Mountains to the East and North, the Jemez Mountains to the west and southwest, and the Ortiz Mountains to the South. As such, the Santa Fe region has also always been a protected cultural haven amidst the high desert, a cosmopolitan oasis that is both removed from the beaten path yet also highly connected. Santa Fe is often referred to as "the end of the trail" (three major trading trails in fact) suggesting a destination of economic activity, not a crossroads. Its high altitude at 7,000 feet, dry air, and summer monsoons create a unique and attractive climate, where layers of enriching soils, water, species, peoples, and cultures have collected, settled, and comingled here over time. There is a reason so many people worldwide feel that Santa Fe looks, smells, and feels like home. The Tewa people who settled in this region long ago named it, "The dancing ground of the sun."10 As such, this is a place of past, present, and future, a sheltered yet at the same time internationally connected cultural, health, and intellectual haven.

In the early decades of the 20th century, Santa Fe began to become nationally recognized as a haven for artists and writers. In the words of artists who flocked here at that time, Santa Fe was "a purifying quiet retreat far from the miasmic swamp of modern urban culture"; a "haven for the pure in heart"¹¹; "an isolated outpost of the spirit of civilization" and a "tiny node of civilization;"¹² a place of "intellectual sophistication as a gathering place of creative people;"¹³ and a locale that imbued visitors with a sense that "they're a part of things."¹⁴

Santa Fe has also served historically as a health haven, starting with the "lungers" who sought healing sunshine and dry high-altitude air as a healing retreat from the ill effects of modern city life. Today, Santa Fe continues to be a major health and healing center for both Western and Alternative medicines.



⁹Chris Wilson, The Myth of Santa Fe. Creating a Modern Regional Tradition (Albuquerque: University of New Mexico Press, 1997): 326.

¹⁰ Richard Leviton. Santa Fe Light: Touring the Visionary Geography of Santa Fe, New Mexico (Bloomington, IN: IUniverse, 2009).

¹¹ Nicholas Joost and Alvin Sullivan, D. H. Lawrence and The Dial (Carbondale, IL: Southern Illinois University Press, 1970): 70.

¹² Philip Stevenson and David L. Neuman, in Martha Weigle and Kyle Fiore, Santa Fe and Taos. The Writer's Era 1916-1941 (Santa Fe: Ancient City Press, 1994): 42.

¹³ Mary Austin, quoted in Victoria E. Dye, All Aboard for Santa Fe. Railway Promotion of the Southwest, 1890s to 1930 (Albuquerque: University of New Mexico Press, 2005): 26.

¹⁴ Edna Robertson and Sarah Nestor, Artists of the Canyons and Caminos. Santa Fe: Early Twentieth Century (Salt Lake City: Ancient City Press/Gibbs Smith, [1976] 2006): 175

It was in fact for health reasons that the famous atomic physicist, J. Robert Oppenheimer, originally came to Santa Fe and fell in love with the area. This plus the region's natural remoteness and space for protected experimentation led to the fateful siting of the Manhattan Project nearby. Los Alamos and Sandia Labs have created what is now a thriving regional informatics industry, where scientists convert abstract theory and data into information for national security and business success.¹⁵

In each of these cases, the dynamic mix of Santa Fe's protectedness, remoteness, and small village scale—all of which creates a fertile cultural seedbed for healing, reinvention, creative experimentation and innovation—coupled with its cosmopolitan connectedness and international ability to influence much larger contemporary movements, is a major factor in what sets Santa Fe apart. Many of Santa Fe's economic and cultural success stories through time are exemplars of this, including Santa Fe's recent rise as a leader in the progressive cities movement.



The hidden gardens, oases, courtyards, and plazas of Santa Fe, and the stepped buildings that enclose them, mimic the high desert basin. Just like the local plant and animal life that thrive in the protected ravines, waterways, and canyons of what can otherwise be a somewhat harsh high desert plateau, people and enterprises have flourished here within protective, creative spaces. Without the presence of protected space, the sometimes harsh clashing of cultural and social differences in Santa Fe can lead to violence and conflict as it has at times in Santa Fe's past.

Yet when this protected space is provided, Santa Fe thrives as an incredible "dancing ground of the sun." This is why Santa Fe is constantly alive with festivals, music, and markets, which is remarkable for a city of its size. And why Mix Santa Fe has been so successful in recent years as a space where diverse generations of business owners and entrepreneurs can build personal and professional connections. It can be seen in the New Mexico Art Museum's early success in growing the arts through the provision of art space for production and display. And more recently, the Santa Fe Business Incubator, Santa Fe Community College, and Santa Fe Art Institute all have helped to provide sheltered space to upcoming entrepreneurs. And through the provision of such spaces, Santa Fe serves as an incredible seedbed for creativity and innovation with a much larger sphere of influence.

¹⁵ "Scientists are profitably busy converting "vast, diverse data sets," including material from chemistry, biology, or mathematical computations, into practical information in the form of interactive software that becomes the basis of medicine, drugs, and even business strategies." Richard Leviton. Santa Fe Light: Touring the Visionary Geography of Santa Fe, New Mexico (Bloomington, IN: IUniverse, 2009).

PATTERN THREE: NATURAL RESOURCEFULNESS

As a somewhat isolated and dry, high desert plateau, the plants, animals, and humans who live here have learned to be incredibly resourceful in the midst of scarcity. Puebloan cultures built waffle gardens, plazas, and beautiful pottery to shelter and hold the precious waters. They also constructed adobe pueblos from the earth that passively moderated temperature extremes in the winter and summer months. The Spanish brought their acequia water irrigation technologies, originating from Europe and North Africa.

Human interventions were not always positive. Overgrazing practices, which diminished already poor soil quality in the area, coupled with Spanish crown trade restrictions and limited annual trade caravans to and from Nueva Vizcaya, forced "Nuevomexicanos" to develop an attitude of resourceful self-sufficiency. Time after time, project proposals submitted to the Real Hacienda received the reply that the idea was a great one, but if it were to be done, it would have to be done at the settlers "own expense." This led to a local "bootstrap" mentality that persists to this day.

A make-do attitude is evident in the lore of local Santero tinwork. According to one local artist, the emergence of tinwork as a Spanish Colonial art form came about due to the resourceful repurposing of castoff tin cans that US soldiers left behind.

It was this same resourceful adaptiveness that allowed Santa Feans to navigate the disruptive economic changes of the 19th century, first with the opening of the Santa Fe Trail that spurred enterprising locals to adapt to a cash-based trade economy, and later with the introduction of the railroad that geographically shifted the commercial center of New Mexico to Albuquerque but simultaneously opened up regional tourism. In both instances, local city leaders and entrepreneurs were able to resourcefully and proactively capitalize on these shifting economic dynamics.

This same resourceful, bootstrap culture is alive and well in Santa Fe today. The region has been recognized recently for its significant concentration of small-business entrepreneurs, including a higher-than-average number of female-owned businesses. And with the rise of the sustainability movement over the last few decades, Santa Fe region's rich history of earth-based resourcefulness has helped to spawn a new wave of innovation. Through the creative contrast of new tech-infused with traditional earth-based practices, Santa Fe has become a leading center in water harvesting and purification, passive solar building, hydroponic agriculture and biofuel production, permaculture design, natural soil regeneration, sustainable ranching and grazing, and heritage foods preservation and production.



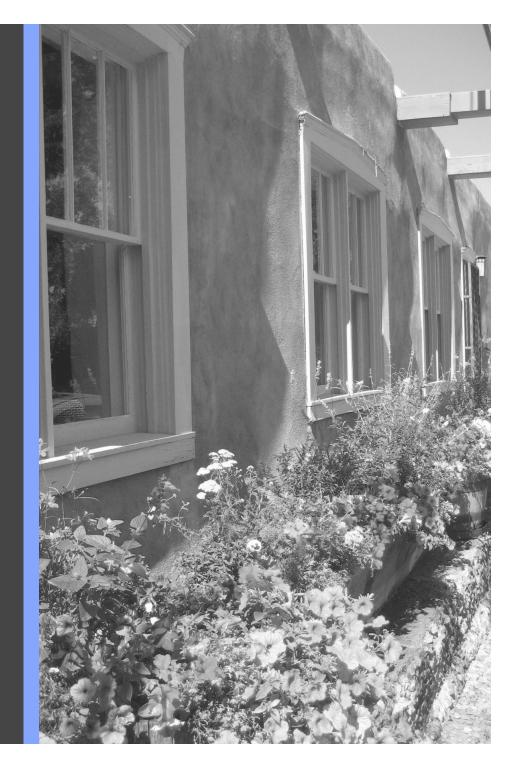
WEAVING IT ALL TOGETHER

In an era of fast-shifting global and national economies, Santa Fe can and should draw upon its past to chart a collective economic vision forward. As Jamie Lerner, the renowned former mayor of Curitiba, Brazil, once said, "Every great city has a vocation." That vocation in Santa Fe relates to place-based localism, which integrates an appreciation of the world with aspirations for sustainability, simplicity, and meaning.

Santa Fe is now a powerful and creative seedbed for place-based innovation. This is already evident in Santa Fe's long history of leadership in the local foods and farmers' market movements. It's evident in Santa Fe's emerging leadership role as a progressive change agent for place-based sustainability, living wages, and livability. It is evident in the recent creation of NMIIC, an innovative pilot for catalyzing local impact investing. The remainder of this report offers ways in which Santa Fe can step up its trailblazing role as an innovative leader in building a robust, local place-based economy.



O2
IMPORT
REPLACEMENT



How can economic development in Santa Fe be better grounded in place? We believe that an important starting point is to focus achieving greater self-reliance by replacing imports with local production.

Economic developers often argue that the best way to grow an economy is to "bring in new money," and the only way to achieve this is by selling more exports. The first part of the argument is correct, but the second part is not. What ultimately matters for bringing in new money is not increasing exports but improving the local trade balance. As important as increasing exports is reducing imports. And as the great economist Jane Jacobs¹⁷ argued, "import replacement" may well be *more* important, because it leads to greater self-reliance, greater diversification, a greater increase in human capital and over time more export industries. Moreover, Jacobs argued, it tends to be easier to grow local businesses around local markets (which are well understood locally) than global markets (which more unpredictable).

Every time a community imports a good or service that it might have cost-effectively produced for itself, it "leaks" dollars and loses the critically important multipliers associated with them. Moreover, import dependencies—on petroleum, for example—subject a community to risks of price hikes and disruptions far beyond local control. They also deny a community a diversified base of businesses and skills needed to take advantage of unknown (and unknowable) future opportunities in the global economy.

Consider one example of the benefits of import substitution: A generation ago, Güssing was a dying rural community of 4,000 in Austria.¹⁸ Its old industries of logging and farming had been diminished by global competition. Many of today's economic developers would have given up and encouraged the residents to move elsewhere.

But in 1995 the mayor of Güssing decided to try plugging energy "leaks." He built a small district heating system, fueled with local wood. The local money saved by importing less energy was then reinvested in expanding the district heating system and in new energy businesses. By 2007, 50 new firms had opened, creating 1,000 new jobs (an increase in human capital) and setting the town on an economic pathway that would reduce its carbon footprint by 90 percent (an increase in natural capital).

Santa Fe County turns out to be a remarkably undiversified and leaky economy, and a key to increasing its property is to expand local businesses that meet local needs. This section summarizes the findings of a leakage analysis of the County, and shows how import replacement could expand jobs, income, and the tax base. It presents the possibilities for import substitution in Santa Fe, and offers examples of what kinds of initiatives could plug leaks in the local economy.

THE ECONOMY OF SANTA FE COUNTY

The primary tool we used to analyze the economy of Santa Fe County is an input-output model called IMPLAN, which is commonly used by economic developers across the United States. The model has two virtues. First, it integrates a number of disparate federal data based on population, wages, consumption, businesses, employment, and so forth into a consistent picture of the entire economy. Second, it allows the user to gain insight into how one set of changes, say the expansion of local banking by100 jobs, affects the rest of the local economy.

 $^{^{17}}$ Jane Jacobs, Cities and the Wealth of Nations (New York: Vintage, 1985).

¹⁸ Jonathan Tirone, "'Dead-End' Austrian Town Blossoms with Green Energy," International Herald-Tribune, 28 August 2007.

CHART 1

OVERVIEW OF THE SANTA FE COUNTY ECONOMY [2014]

MODEL INFORMATION		
GROSS REGIONAL PRODUCT	\$6,618,019,908	
TOTAL PERSONAL INCOME	\$6,736,391,000	
TOTAL EMPLOYMENT	89,270	
POPULATION	148,164	
TOTAL HOUSEHOLDS	61,141	
AVERAGE HOUSEHOLD INCOME	\$110,178	

Chart 1 provides a snapshot of the Santa Fe County economy in 2014, drawn from the most recent IMPLAN data available. It shows that 148,164 County residents live in 61,141 households, with an average household income of \$110,178. Note that household income represents more than one income earner. The surprisingly high average reflects a small segment of higher-income earners averaged against a much larger segment of lower-income earners.¹⁹

¹⁹ IMPLAN's household income number is higher than that reported in the Census for two reasons. IMPLAN looks at average income, while Census looks at the 50th percentile. IMPLAN also includes non-wage sources of personal income, including self-employment income, rents, dividends, interest, income supplements, retirement, and transfer payments. For further explanation, see: http://support.implan.com/index.php?option=com_content&view=article&id=383#qualitative-differences

CHART 2

SUPPLY & DEMAND IN THE SANTA FE COUNTY ECONOMY [2014]

SUPPLY [VALUE ADDED]			
EMPLOYEE COMPENSATION	\$3,554,638,955		
PROPRIETOR INCOME	\$481,239,061		
OTHER PROPERTY TYPE INCOME	\$2,131,128,151		
TAX ON PRODUCTION & IMPORTS	\$451,013,741		
TOTAL VALUE ADDED	\$6,618,019,908		

FINAL DEMAND				
HOUSEHOLDS	\$6,065,523,749			
LOCAL/STATE GOVERNMENT	\$1,794,407,963			
FEDERAL GOVERNMENT	\$425,618,174			
CAPITAL	\$1,049,900,494			
EXPORTS	\$3,102,476,566			
IMPORTS	- \$5,556,252,883			
INSTITUTIONAL SALES	- \$263,654,175			
TOTAL FINAL DEMAND	\$6,618,019,889			

Chart 2 shows the total supply and demand for the economy in Santa Fe County. IMPLAN is constructed like an accountant's balance sheet, so that both sides, production and consumption, always equal one another. Local consumption is met by local production plus imports. Local production supplies local consumption and exports. The size of each side, what is called "gross regional product," is roughly \$6.6 billion per year.

There are two important points to highlight: Because state government is located in Santa Fe, it constitutes a significant part of the "demand." And imports are more than \$2 billion greater than exports. This means that Santa Fe County is running a serious annual trade deficit. Were Santa Fe County a country, it might devalue its currency to bring its trade back into balance. But Santa Fe has no control over the currency, so a trade imbalance means that wealth is steadily disappearing. What's needed to reduce the trade deficit are more exports, fewer imports, or both.

Chart 3 shows the breakdown of the private sector in the County, compared with that of the United States and New Mexico. The relatively high percentage of jobs in retail, arts, and accommodation is not surprising for a tourism-dependent economy like Santa Fe's, but it's worth noting that these sectors have relatively low wages. The smaller presence of manufacturing and professional services, which have relatively high wages, also brings down incomes.

The data below are drawn from the U.S. Census Bureau, which presents jobs in a format called the North American Industrial Classification Scheme (NAICS). Historically, NAICS has excluded public employees, self-employees, and farmers. Were these data included, we would see the following:

- Santa Fe, as noted already, has an unusually large public sector, including local government, New Mexico state government, and many federal agencies.
- Statistics on self-employed individuals can be found in another Census Bureau data base called "Nonemployer Statistics."
- The most recent statistics from 2014 show that Santa Fe County has 16,248 "nonemployer businesses," compared to 121,343 in New Mexico and 23.8 million in the United States. On a per capita basis, Santa Fe County has significantly more entrepreneurial activity than the U.S. as a whole and nearly double the level of New Mexico.
- Statistics on farmers can be found in the 2012 "Agriculture Census," published by the U.S. Department of Agriculture. ²¹ Santa Fe County has 1,143 farm operators (some part time), while New Mexico has 31,201. On a per capita basis, Santa Fe has half as many farmers per capita than the state overall.

²⁰ https://www.census.gov/econ/nonemployer/index.html

²¹ https://quickstats.nass.usda.gov/?source_desc=CENSUS

CHART 3 COMPOSITION OF PRIVATE SECTOR JOBS

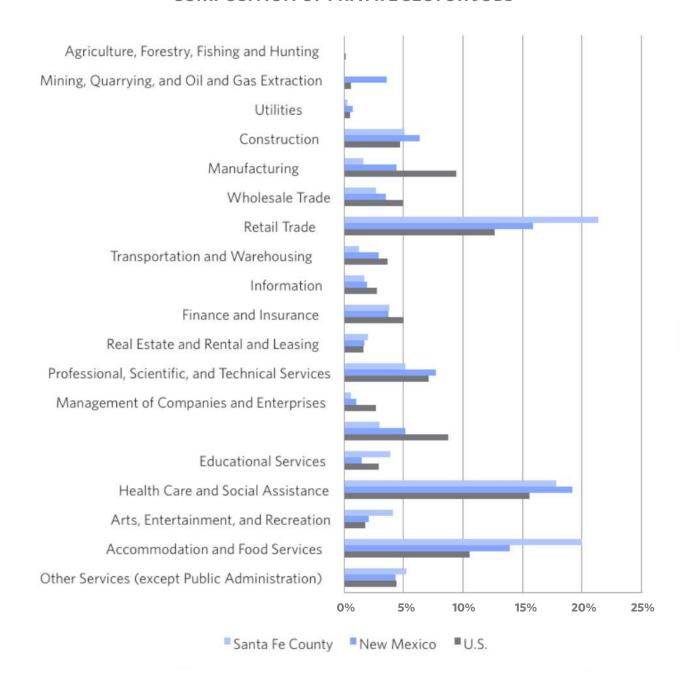




Chart 4, drawn from IMPLAN, presents a more detailed breakdown of the jobs, wages, and output in Santa Fe County. IMPLAN fixes the deficiencies of NAICS, and includes public employees, self-employees, and farmers. It shows that the single largest employment category is government services, which provides nearly one out of every five jobs. Another striking detail is average wages. Contrary to common belief, some services, such as health and finance, pay more than some manufacturing categories. Also, output (which roughly means total sales) disproportionately comes from real estate transactions.

CHART 4

JOBS, OUTPUT, & WAGES OF ALL SANTA FE COUNTY SECTORS [2014]

			Employee	Average
IMPLAN Sector	Employment	Output	Compensation	Compensation
Farming, Ranching, & Forestry	661	\$32,256,377	\$7,034,312	\$10,637
Mining, Oil, and Gas	952	\$239,537,908	\$9,594,796	\$10,075
Energy & Utilities	140	\$104,732,904	\$13,126,818	\$93,514
Construction	3,953	\$625,879,778	\$103,346,241	\$26,145
Manufacturing				
* Food, Beverages, & Tobacco	465	\$154,864,276	\$13,669,163	\$29,400
* Fibers, Textiles, & Clothing	143	\$18,049,065	\$1,728,691	\$12,052
* Wood and Wood Products	99	\$19,002,428	\$2,021,675	\$20,500
* Paper, Paper Products, & Printing	102	\$24,492,437	\$2,840,462	\$27,713
* Petroleum-Based Products	167	\$276,630,134	\$12,505,778	\$74,936
* Rubber, Glass, Stone, & Concrete Produ	154	\$44,826,405	\$6,317,672	\$40,918
* Metals	67	\$37,211,625	\$2,925,651	\$43,748
* Metal Products	109	\$24,056,499	\$3,650,564	\$33,340
* Machinery & Equipment	83	\$34,405,983	\$4,728,369	\$56,666
* Computers, Electronics, & Appliances	71	\$28,162,658	\$5,419,350	\$76,091
* Vehicles, Boats, & Planes	70	\$49,289,883	\$5,377,468	\$76,827
* Furniture	69	\$8,437,798	\$1,686,937	\$24,403
* Health Equipment	17	\$2,918,512	\$698,803	\$40,315
* All Other Manufacturing.	279	\$50,926,140	\$6,108,626	\$21,883
Wholesale Trade	1,282	\$246,289,490	\$59,023,472	\$46,032
Retail	9,933	\$756,491,499	\$309,500,052	\$31,158
Transportation	695	\$95,382,232	\$30,018,679	\$43,175
Warehousing & Storage	31	\$3,479,320	\$1,712,037	\$54,854
Services				
* Information Businesses	1,970	\$757,813,512	\$54,591,224	\$27,706
* Banking & Finance	3,487	\$732,311,331	\$295,201,826	\$84,660
* Real Estate & Leasing	4,387	\$1,823,633,668	\$44,092,982	\$10,050
* Professional Services	10,201	\$991,407,474	\$349,597,352	\$34,270
* Private Education	2,106	\$136,296,246	\$71,688,108	\$34,043
* Health & Human Services	10,442	\$932,617,640	\$501,677,751	\$48,045
* Entertainment, Tourism, & Food Service	13,553	\$852,628,866	\$288,338,558	\$21,274
* Personal Services	3,540	\$190,721,007	\$61,770,372	\$17,449
* Churches, Nonprofits, & Unions	1,271	\$198,569,368	\$58,660,342	\$46,162
* Household Operations	1,853	\$48,300,922	\$48,300,922	\$26,068
* Government Services	16,914	\$1,910,290,972	\$1,177,683,901	\$69,629
	89,270	\$11,451,914,355	\$3,554,638,955	

CHART 5 JOBS IN SANTA FE COUNTY BY SECTOR [2014]

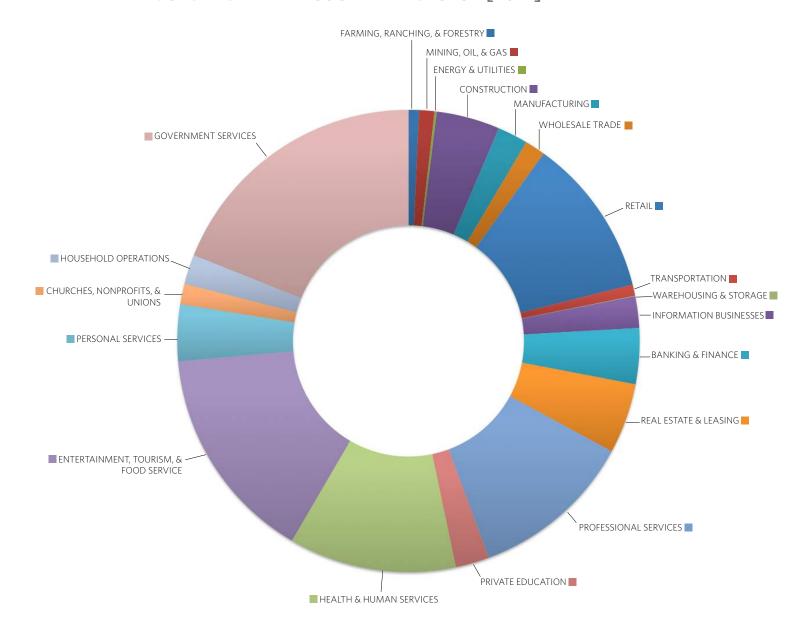


Chart 5 presents a pie chart of the above categories (with all the manufacturing sectors combined), showing again how significant government service jobs are.

LEAKAGE IN SANTA FE COUNTY

IMPLAN can be used to determine the degree of leakage in Santa Fe County—that is, to what extent are residents buying goods and services from outside the County. This calculation is important because imports provide no economic benefit locally and are responsible to the County's high trade imbalance. **Chart 6** summarizes our findings.

Overall, for every dollar spent by residents, 48 cents leak out.

This suggests **a huge** opportunity for import replacement.

CHART 6 LEAKAGE IN THE SANTA FE COUNTY ECONOMY

CURRENT SPENDING ON LOCAL PRODUCTION	\$6,052,923,189
ADDITIONAL PRODUCTION FOR SELF-RELIANCE	\$5,556,252,883
TOTAL LOCAL DEMAND	\$11,609,176,072
ROUGH LEVEL OF LEAKAGE	48%

CHART 7 LEAKINESS OF IMPLAN'S 539 SECTORS

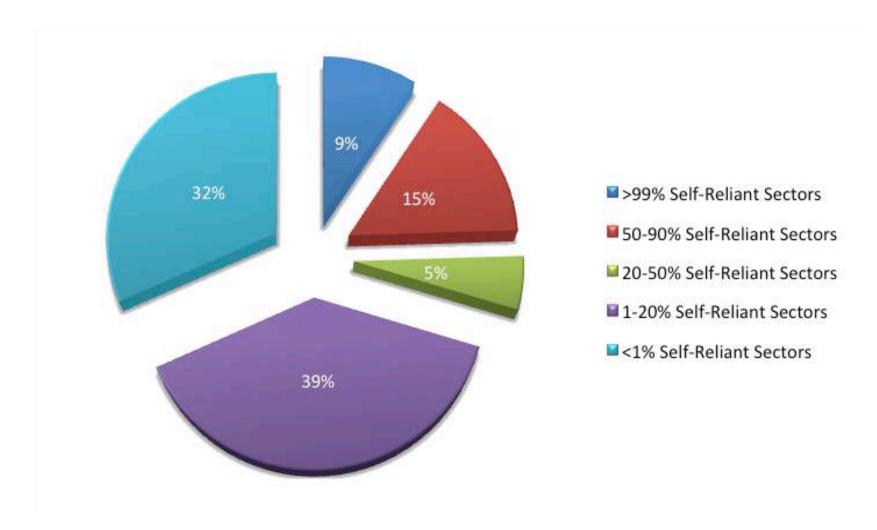


Chart 7 reinforces this point by showing how many economic sectors lack self-reliance. IMPLAN combines many of the 1,100 NAICS sectors into a simpler model of 539 sectors. Santa Fe County is self-reliant in only 9% of these IMPLAN sectors. About 70% of the sectors are less than 20% self-reliant, and a third of the sectors have almost zero activity in them. Roughly three-quarters of Santa Fe's sectors are thus less than 50% self-reliant.

Chart 8 Put positively, a modest import-replacement effort that grew these under-sized sectors could have a huge potential impact. Were residents of Santa Fe County to shift 10% of their outside spending to local goods and services, Chart 8 shows that the economy would enjoy almost 4,700 new jobs, more than enough to employ the roughly 4,000 residents currently unemployed. Additionally, the shift would raise incomes by \$213 million and the state and local tax base by \$35 million from additional business taxes.

The 4,700 jobs come from three sources. "Direct" jobs come from the initial expansions of local businesses to meet local demand. "Indirect" jobs come from the increased purchases by these local businesses from other local businesses. And "induced" jobs come from the expanded purchasing by the new employees at all the expanding local businesses.

CHART 8 IMPACTS FROM A 10% SPENDING SHIFT

IMPACT TYPE	JOBS	WAGES	VALUE-ADDED	TAXES
DIRECT EFFECT	2,636	\$128,858,341	\$203,740,156	\$20,565,353
INDIRECT EFFECT	1,185	\$47,813,131	\$80,545,650	\$7,849,821
INDUCED EFFECT	857	\$36,960,038	\$67,286,571	\$6,425,901
TOTAL EFFECT	4,6778	\$213,631,509	\$351,572,377	\$34,841,075

CHART 9

TOP DOZEN IMPORT REPLACING SECTORS (BY NEW JOBS)

PROFESSIONAL SERVICES	1,091
LOCAL FOOD [INCLUDING FOOD MFGR]	709
FINANACE, INSURANCE, & REAL ESTATE	558
RETAIL & WHOLESALE	481
HEALTH & HUMAN SERVICES	382
INFORMATION [INCLUDING MFGR]	231
TRANSPORTATION & WAREHOUSING	190
CONSTRUCTION	142
MINING, OIL, & GAS	132
ENERGY & UTILITIES	19
ALL OTHER MANUFACTURING	433
ALL OTHER SERVICES	308

Chart 9 summarizes the job opportunities in a dozen high-level (more general) industrial categories, listing the biggest opportunities first.²²

²² These categories reflect the IMPLAN and NAICS scheme of organizing industries, with a few common-sense exceptions. Food, for example, includes farming, food manufacture, and restaurants. And information includes related manufacturing (like computers) and services (like software design).

CHART 10

COMPREHENSIVE LIST OF IMPORT REPLACING OPPORTUNITIES (BY NEW JOBS)

Economic Categories	Direct	Indirect	Induced	Total
Farming, Ranching, & Forestry	71	99	2	172
Mining, Oil, and Gas	79	50	3	132
Energy & Utilities	13	5	1	19
Construction	118	17	7	142
Manufacturing				
* Food, Beverages, & Tobacco	105	0	1	106
* Fibers, Textiles, & Clothing	77	0	0	78
* Wood and Wood Products	22	2	0	24
* Paper, Paper Products, & Printing	45	2	0	47
* Petroleum-Based Products	51	1	0	52
* Rubber, Glass, Stone, & Concrete Products	22	1	0	23
* Metals	9	0	0	9
* Metal Products	49	0	0	49
* Machinery & Equipment	35	0	0	35
* Computers, Electronics, & Appliances	49	0	0	49
* Vehicles, Boats, & Planes	33	0	0	33
* Furniture	31	0	0	31
* Health Equipment	17	0	0	17
* All Other Manufacturing.	34	0	0	35
Wholesale Trade	144	51	15	211
Retail	54	65	151	270
Transportation	121	33	7	161
Warehousing & Storage	27	2	0	29
Services				
* Information Businesses	106	57	18	182
* Banking & Finance	186	198	45	429
* Real Estate & Leasing	11	77	41	129
* Professional Services	665	349	77	1091
* Private Education	19	2	35	56
* Health & Human Services	185	1	196	382
* Entertainment, Tourism, & Food Services	174	104	153	432
* Personal Services	51	32	65	149
* Churches, Nonprofits, & Unions	19	4	12	35
* Household Operations	0	0	9	9
* Government Services	12	31	15	59
	2636	1185	857	4678

A more fine-toothed listing is shown in **Chart 10**.

A sensible strategy for developing import replacement markets would start with the largest opportunities for job creation, which are professional services, food businesses, and finance, insurance, and real estate (FIRE) businesses. These are potential jobs. Moving from potential to plausible jobs requires careful attention to particulars. Some local jobs—in certain mining categories, for example—might be unavailable because the natural resource base doesn't exist or they would degrade natural capital. Others, such as certain manufacturing opportunities, might require small-scale plant designs that fit some types of manufacturing better than others. All these opportunities require committed entrepreneurs prepared to seize them. This underscores why we calculate jobs from a 10% shift rather than a 50% shift or a 100% shift. Only some of the potential jobs are plausible.

To obtain these plausible jobs from import replacement, economic developers in Santa Fe should promote the following EIGHT priorities:

- Professional Services Expanding local professional services is the highest priority, not only because these are the jobs most missing from the local economy but also because they pay well. Professional services also require very low overhead, and many can even be based out of the practitioners' homes.
- Local Food Local food is already a major feature of the Santa Fe economy, and serves as an important magnet for tourists. Given the climate, expanding raw production may require greenhouse growing and soil regeneration. But many new jobs can come from local food processing and delivery. Additionally, all kinds of food jobs—including restaurants and bars—will expand as the economy expands.

- Local Finance More local finance, insurance, and real estate (FIRE) will help the economy in two ways: it will provide more jobs, and it will provide entrepreneurs with more capital for expanding their businesses. As the next section on finance underscores, Santa Fe has some local banking but is largely missing other important institutions for a healthy local investment ecosystem.
- Retail & Wholesale While greater local purchasing can boost the Santa Fe economy, the biggest job opportunities are in the wholesale sectors. It would be helpful to work with existing manufacturers and retailers to help them identify local distributors and middlemen.
- Health & Human Services Healthcare is a fast-growing part of the US economy, and Santa Fe County is no exception to this trend. Right now, however, many residents are traveling to Albuquerque and elsewhere to see doctors or find other hospital services. Existing local health-care providers need to expand.
- Information Even though Santa Fe is a hub for many entrepreneurs, they often choose to develop information-related businesses elsewhere. These leaks can and should be plugged. The State Auditors Office, which has monitored leakage from state and local government procurement offices, has identified IT services as a prime opportunity for import replacement.
- Transportation & Warehousing Alongside expanded local wholesaling, discussed above, is the need for expanded local transportation and warehousing of goods.
- Construction Many construction services in Santa Fe are being unwisely outsourced to nonlocal companies. Localizing these jobs offers more local entry-level positions that are especially important for recent immigrants.

IMPORT REPLACEMENT STRATEGIES

Import replacement can be accomplished through five different strategies:

- Localizing Demand If an industry already exists, greater local purchasing—by consumers, businesses, and government agencies—can naturally expand that industry. In the category of professional services, for example, if a resident is currently using a tax attorney in Denver, switching to a Santa Fe attorney would achive import replacement in professional services.
- Expanding Supply Sometimes, expanding supply might lead to import replacement as well. If a Santa Fe accountant sensed there was more local demand, she might spend more to advertise locally. This, in turn, might convince more Santa Fe residents to get their taxes done locally.
- Increasing Efficiency Another way to accomplish import replacement is to reduce local demand through technology or lifestyle change. For example, if Santa Fe wished to reduce imports of gasoline, it could increase the efficiency of its fleet of automobiles, or significantly reduce the need to import electricity by installing solar arrays on public buildings and parking lots, and in the process increase job demand for skilled, local installers.
- Substituting Demands Reframing certain needs also can reduce imports. Many of the largest imports related to health care, for example, are nonlocal medical equipment and pharmaceuticals, all associated with patient treatment. Wellness programs, in contrast, are largely rooted in local initiatives around nutrition, exercise, counseling, and support. Shifting health care from treatment to prevention, which most public health experts urge, can reduce the leakage of health-care dollars.

• Localizing Ownership – Finally, it's important to consider the ownership of businesses sited in Santa Fe. Studies have shown that locally owned businesses tend to spend two to four times more money locally than do chain, franchise, or other nonlocal businesses. Returning to the accountant example, shifting from an H&R Block franchise to a local tax preparer will reduce imports (mostly by other sectors) and boost the local economy.

As an example of import replacement in action, consider how Santa Fe might realize the 709 jobs from 10% localization of the food sector. Options could include:

- More local farming and food processing.
- Campaigns that encourage Santa Fe residents to buy more local food.
- City and county procurement policies that get more local food into the schools.
- Entrepreneurship programs that train more local farmers and startup food processors.
- Collaborations among Santa Fe restaurants to procure jointly kitchen equipment and dishes (which brings down unit prices and makes them more competitive).
- Local investment initiatives that put local capital in the hands of local food entrepreneurs.
- Licensing changes that allowed residents to do more bulk food pro duction in their home kitchens.
- Campaigns that shift shopping from a chain supermarket to a local food coop.

To envision what import replacement might look like in some of the other sectors, consider some of the strategies that other communities have undertaken:

- Professional service leaks can be brought down by identifying former residents who have become successful professionals elsewhere—perhaps architects or scientists—and recruiting them to move back to Santa Fe.
- Finance leaks can be plugged by creating a Santa Fe investment portal (Milk Money in Vermont is a good model) that connects local investors with local business. (Ideas for localizing finance are developed in the following section.)
- Retail leaks can be plugged by creating a loyalty card like Placemaker (started in Portland), which rewards consumers for doing more of their shopping at local stores.
- Health leaks can be plugged by promoting local wellness initiatives, such as prenatal care, better nutrition, or more exercise.
 (The nation's premiere health policy philanthropy, the Robert Wood Johnson Foundation, now funds community health initiatives in cities across the United States as a form of economic development.)

- Information leaks can be plugged by refurbishing old computers (Denver has a successful program like this), and placing them in the hands of low-income residents and young people.
- Transportation leaks can be plugged by encouraging the development of locally owned delivery systems, such as Pikfly in Phoenix.
- Construction leaks can be plugged by reforming government procurement practices (as the Canadian Province of New Brunswick is doing) to take into account the tax benefits provided by local providers. This would lead to more hiring of local contractors for construction of local roads, buildings, and infrastructure.
- Manufacturing leaks can be plugged by creating a "Made in Santa Fe" label (similar to San Francisco's), which encourages residents to buy local goods more frequently.

A MULTI-CAPITAL PERSPECTIVE

As mentioned earlier, every time a community imports a good or service that it could cost-effectively produce for itself, it "leaks" dollars and loses the critically important multipliers associated with them. Financial capital, however, is not the only form of "leakage" that can undermine the strength of a local economy. Natural, human, social, and built capital²³ are also all critical to sustainable development and, when sourced and grown locally, can strengthen the resiliency of the local economy.

From a natural capital perspective, one approach that Santa Fe might take to promote import replacement—an approach consistent with grounding economic development in place—is to nurture nascent local industries rooted in natural resources. These industries offer opportunities for greater self-reliance and for export earnings. Some examples are explored in the following two pages.

²³ From a multi-capitalism perspective, sustainable economic development is sourced from at least five forms of capital:

Natural capital is supplied by the interdependent web of natural living systems that generate, provide sustenance, and enable the evolution of life on the planet. Water, soil, energy, and raw materials are all examples of natural capital.

Human capital consists of peoples' capacity (including their health, knowledge, skills, motivation, and competence) to engage in productive, value-adding work. This capital can be grown through healthcare, education, training, self-development and experience.

Social capital refers to the capacities of a community to foster cooperation and trust among people and groups. A community with high social capital tends to have strong working social networks and institutions (e.g. families, churches, cultural organizations, business networks, schools, civic groups, etc.) whose interdependent efforts support the achievement of collective goals.

Built capital consists of both "hard" assets (e.g. tools, machinery, produced goods, buildings, physical infrastructure - including transportation, water, telecommunication, waste disposal and energy, etc.) and "soft" assets (e.g. intellectual/cultural assets, databases, web platforms, copyrights, etc.) that are used to enable the generation and exchange of goods or services, and which can also be further developed to add greater value.

Financial capital facilitates economic production, though it is not itself productive. Money is capital if it is invested to provide valuable goods and services or to produce some other form(s) of capital returns. Financial capital contributes to increasing community wealth if it is invested to generate increased human, social, natural, or built capital, as well as financial returns, where applicable.

For more information, please see http://www.eoearth.org/article/Capital

SUN

As a place known for "dancing ground of the sun," Santa Fe is a natural cradle for solar-energy technologies. Indeed, passive-solar building design is a contribution derived from ancient native technologies. Ed Mazeria, a Santa Fe architect, and others have successfully demonstrated how the sun and heat-absorbent materials can replace fossil fuels for heating or cooling buildings. This industry, especially in the construction materials arena, plus distributive solar electrical generation, are two business sectors here that offer potential for scaling-up.

There are already a few locally owned solar installation companies doing well in Santa Fe, and the potential for expanding market demand is great, especially if long-term financing were available (see Finance Opportunities section in this report for more details). While the cost of solar panels has dropped precipitously in recent years, the one-time, up front cost of installing a solar array is prohibitive for most people. With long-term financing, however, the actual cost is zero if the monthly finance payments are no more than the building's existing monthly electrical costs. This applies to City, County, State and school buildings, as well as to commercial and residential buildings. With appropriate financing, everyone who pays an electrical bill can afford solar electrical generation. Homewise, an affordable housing builder in Santa Fe, has demonstrated this on a small scale by establishing a solar installation loan fund.

WATER

From acequias, to water conservation and harvesting, to the introduction of WERS²⁴, to "constructed wetlands" (black water to potable water recycling), Santa Fe has been a leader in designing, implementing, and selling water management systems. There are currently a few small enterprises in this sector, but the potential for scaling up Santa Fe's contribution to this industry is large. It should be noted that in the first week of June of this year, the Santa Fe Green Chamber of Commerce is co-sponsoring a three-day national water conference in Santa Fe.²⁵

SOIL REGENERATION

The soils in Santa Fe's region range from decomposed granite to clay to volcanic to alluvia. But due to rapid runoff and flash floods that have eroded the good soils, plus overgrazing in the late 19th and early 20th centuries, Santa Fe has had to develop technologies for soil regeneration. This has led to a few local landscaping businesses (e.g. San Isidro Permaculture and Santa Fe Permaculture) in this market. As the region gets more serious about producing food locally, more businesses here will emerge. These technologies plus water management system designs provide permaculture entrepreneurs with an opportunity to grow consultant businesses that would assist farmers, ranchers, and others throughout New Mexico and the Southwest to grow healthier soil and produce greater yields.

Builders Association (SFAHBA), and members of the City of Santa Fe Water Conservation Committee (SFWCC) have created water modeling software that generates a Water Efficiency Rating Score, or WERS®. The premise is that verified measurement and incentives will increase participation in conservation efforts.

The initial goal was to integrate the WERS® into the BGNM program and use it to document an empirical method of calculating eligibility for water use reduction tax credits. In February of 2014, goals were generated along with an initial action plan. In the following months, a formalized committee, consisting of representatives from BGNM, the SFWCC, the SFAHBA, The Coalition, and the Santa Fe Community College (SFCC), continued to refine the WERS® program.

Measurable parameters were established as the foundation of WERS®, along with a scoring scale of zero to 100 with zero being the most desirable. The decided focus was on water using elements that could be measured. Initially, indoor water use was considered that involved the main plumbing fixtures of toilets, showers, lavatories, kitchen sinks, clothes washers and structural waste. Structural waste is the amount of water that is typically wasted before usable hot water arrives at the furthest hot water using fixture. The calculation for structural waste is based on the water wasted for conventional water heating systems.

²⁴The Green Builder® Coalition, in cooperation with Build Green New Mexico (BGNM), Santa Fe Area Home

²⁵ http://www.wers.us/tag/green-chamber-of-commerce/

HERITAGE FOODS

Seeds of Change was originally a Santa Fe based company, founded in 1989, with a mission of providing "organically grown seeds for farmers and gardeners, while preserving countless [native] heirloom varieties in danger of being lost to 'advances' of modern industrial agriculture." Quite successful, it was acquired by Mars, Inc., and disappeared from New Mexico. It serves as an example, however, of future food-related opportunity for new local businesses.

Rick Schneider, a Santa Fe resident, is in the process of putting together a native seed/food production system based on Landrace corn. When complete, beyond broadening a special crop opportunity for local farmers, new jobs will open up for shuckers, millers, and marketers. The combination will not only be able to save a heritage seed but sell uniquely delicious corn meal to local tortilla markets and—because of its delicate flavor—to gourmet restaurants, locally as well as in New York, Los Angeles, San Francisco, and beyond. Because it is an indigenously generated seed suited to our climate and soil conditions, it takes less water to grow it and has other ecosystem advantages.

Native chili and other indigenous seeds also can provide significant value-adding business opportunities. The potential for discovery of other heritage foods leading to a greater, sustainable local economy is real.

LOCAL, SUSTAINABLE AGRICULTURE

Due to the seasonal nature of growing fresh produce in Northern New Mexico, local food is available for only a portion of the year. Santa Fe Community College (SFCC), however, sees this as an opportunity and is in the process of developing a pilot hydroponic farm to produce fresh produce and fish year around. If successful, this could lead the way for local farmers to provide in all four seasons sustainably fresh, food production throughout the Santa Fe region. This technology could in turn be sold to communities worldwide with scarce water resources.

RANCHING & GRAZING INNOVATIONS

Appropriate livestock and native grasses that consume less water and do not deplete the soil, provide great potential for generating a sustainable local food supply. As an example, Tall Foods, a new, locally owned company in Santa Fe, is raising ostriches as a healthier, equally flavorful, red meat alternative to beef. Ostriches consume far less water than cattle, do not compact the soil, offer a number of byproducts, and do not require the amount of forage. The Quivera Coalition and the South West Grassfed Livestock Alliance are two other local examples.

BIO-FUEL

SFCC is researching and developing bio-fuel production from algae for use as a backup energy source, complimentary to intermittent solar and wind electrical generation. Bio-fuel is also a good prospect for replacing gasoline and diesel. In addition to research and development, SFCC is training the workforce for these future businesses.

All of these natural resource industries demonstrate Jane Jacobs's argument about the power of import replacement. Even though these industries start by meeting local demand, they gradually grow to meet regional, national, and global demands. But unlike business attraction strategies, these industries ensure that economic development is rooted in place.

HUMAN, SOCIAL & BUILT CAPITAL

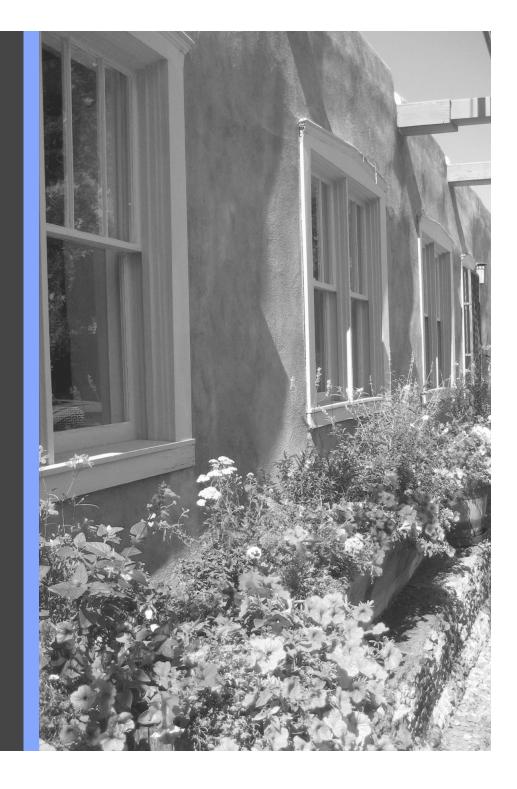
Beyond financial and natural capital perspectives, local import replacement strategies for Santa Fe can also be bolstered through the lens of the other three capitals (human, social, and built). From a human and social capital perspective, one of the critical "leakages" that adversely affects economic development in the Santa Fe area is its professional talent pool. Numerous local business owners and business support professionals spoke about educational skill gaps in the local workforce. As businesses become more inclined to move to where a professional talent pool is readily available, local youth who pursue higher education and professional development degrees are inclined to follow. Likewise, new businesses might be discouraged from relocating to the Santa Fe area for similar reasons.

Successful import replacement requires growing and attracting a stronger professional talent pool that can meet the needs of existing and potential new local business development. The pending vacancy of the SFUAD campus offers Santa Fe an opportunity for addressing this need. The temptation to attract another outside education institution to fill the lease would miss the opportunity to leverage local talent and enjoy a greater "multiplier" effect.

A better idea might be to expand the adjacent "Higher Education Center" to the campus and develop it as a consortium hub for higher education and research institutions throughout New Mexico. Better still, focus the hub on sectors that strategically support the development of Santa Fe's economic future. The Houston Advanced Research Center (HARC) is a successful example of this model. HARC is a not-for- profit university consortium that serves as a hub for sustainable technologies research and development in the Houston area. A similar consortium could be developed on the SFUAD campus as a higher education and research center for local sustainable development. The campus could be revamped with mixed-use development of buildings (combining retail, entertainment, educational, and city government functions) and with degree programs supporting sustainable design, engineering and architecture.

A second critical "leakage" (from a social and built capital perspective) that currently affects economic development in the Santa Fe area is the lack of affordable housing stock. Due to this current imbalance between supply and demand, Santa Fe is currently "importing" low-and-medium-income workers who live in neighboring regions such as Rio Rancho and Espanola. These families end up receiving income from Santa Fe and spending it elsewhere, thus reducing potential local multiplier effects through the recirculating of dollars. Compounding this leakage is the fact that the majority of local affordable housing projects (by volume) are currently being built by non-local construction companies. This "problem," however, offers an opportunity for economic development. Local financing and policy strategies that can incentivize affordable housing development by local businesses could leverage this multiplier effect.

O3 LOCALIZING FINANCE



A successful import-substitution strategy requires local finance, both to expand existing local businesses and to start new ones. Unfortunately, one of the main leakages in the Santa Fe County economy *is* finance. Plugging this leak is essential.

According to the website YourEconomy.org, in 2015 the County had roughly 11,300 jobs, and 82.6% of them were in locally owned business. Of the remainder, 10.3% were in government agencies or nonprofits, which are also locally rooted. This underscores the extent to which the economy depends on local business and institutions. In a healthy Santa Fe economy, residents would be investing heavily in these businesses. Instead, their short-term savings are largely going into nonlocal banks which lend to nonlocal business, and their long-term pension savings are almost entirely going into publicly traded, nonlocal business.

How can Santa Fe residents be mobilized to put more of their savings into local business? This section summarizes what has been done locally, and what more needs to be done.

WHAT IS BEING DONE

Here are some of the assets currently available for local investment, with some of the limitations of each. All these activities should be substantially expanded.

- Local Banks and Credit Unions There are a number of important locally owned banking institutions in the County that put their savings to work locally. Examples include Century Bank, the Del Norte Credit Union (once called the Los Alamos Scientific Lab Credit Union), the Guadalupe Credit Union, the Nusenda Credit Union, and the Sandia Area Credit Union (which recently absorbed the Permaculture Credit Union).
- Microfinance Microfinance is designed to help very small entrepreneurs get started. Two examples active in the state are ACCION New Mexico and the New Mexico Community Development Loan Fund. The New Mexico Loan Fund has assembled \$23 million to lend to promising small businesses in the state.

- Community Development Financial Institutions CDFIs are financial institutions that, based on their commitment to assisting communities of color and communities in poverty, can receive access to federal grants and low-interest loans. CDFI's active locally include New Mexico Community Capital, ACCION NM, The New Mexico Loan Fund, and some credit unions.
- Angel Groups Angel investors are deep-pocket individuals or families looking for promising early stage companies. Two active NM networks that organize events and connect angels with entrepreneurs are New Mexico Angels and HD3 Angels, the latter of which has put half a million dollars into promising New Mexico tech businesses.
- Cooperatives Coops have long provided a way for unaccredited investors to pool resources to capitalize critical businesses, because memberships in a cooperative are not deemed "securities." Some coops, like the La Montanita Food Coop, also pay their members handsomely to borrow money for capital projects. La Montanita Coop also has established a fund, underwritten by its members, that lends money to small farmers and local food businesses.
- Individual Development Accounts IDAs offer a way to help the poor begin saving. There are programs promoting these already in the state, but they should be expanded so that every person claiming the Earned Income Tax Credit (EITC) automatically gets an IDA account in a local financial institution.
- Donation Crowdfunding Local businesses can take advantage of literally hundreds of web sites that promote donation crowdfunding, where a participating business often rewards a donor with a token (a tee-shirt, for example). The largest ones are Kickstarter and IndieGoGo, but there are many smaller players that focus on specific communities (e.g. MainStreetCrowd's KeepItQuerque) and specific niches (like films). The typical amount raised from businesses that use these sites, however, is \$5-10,000.

- Peer Lending A number of companies facilitate lending from unaccredited investors to small businesses. KivaZip, for example, enables New Mexico lenders to make interest-free loans to local businesses. Prosper and the Lending Club allow New Mexican small businesses to receive interest-bearing loans, but the state is one of the few in the country that prohibits New Mexicans from participating as investors.
- *Employee Ownership* One way to facilitate local investment is to help employees buy some or all of their companies' equity. Project Equity is active in the state promoting this strategy.
- Government Funds The City of Santa Fe is trying to raise \$300,000 to support local small businesses through its new Verde Fund. The state has deployed the Catalyst Fund, financed with revenues from oil and gas leases, which supports local business.
- Integrative Financing The Santa Fe Community Foundation is working with a Taskforce of national and local funders, called the New Mexico Impact Investing Collaborative, to help facilitate and increase the supply and deployment of local impact investing capital in New Mexico. This effort has the potential for building collaborative relationships among foundations, philanthropists, and private banks.
- Public Banking The Santa Fe City Council unanimously passed a resolution on April 26, 2017, to create a task force to define the charter for a Public Bank in Santa Fe. This came out of a feasibility study conducted by Katie Updike of Building Solutions.

- According to Mayor Gonzales, "The idea would be to go forward and develop a model be it in the form of a bank or some other structure that takes the public's treasury, allows for maximum transparency in terms of how it's invested, and uses it in a way that has greater benefit to the public than currently exists."The proposed Public Bank would enable the City of Santa Fe to hold its funds locally and possibly avoid expensive municipal bonding fees for infrastructure projects. Currently, \$81,000,000 of the city's funds is deposited in non-locally owned banks.²⁶
- Self-Directed IRAs –Investors can expand investment opportunities for tax-deferred savings beyond Wall Street stocks and bonds if they rollover IRA money into self-directed IRAs or 401k money into solo 401ks. These options have been available for decades, but only a few financial advisers understand and recommend them to their clients.
- Community Portals Under the federal JOBS Act, passed in 2012, online "portals" can be created to facilitate investments under \$1 million into small businesses. Unaccredited investors may participate and invest up to \$2,000 per company per year (with higher limits if the investor has a higher income). Several portals based in Albuquerque are reportedly under development. Reliance on the federal law, however, means that investment cannot be restricted to New Mexicans.
- Slow Money One of the leading organizations promoting local investment is Slow Money, which advocates that members pledge to put at least 1% of their investments into local farms or food. Woody Tasch founded it while living in Truchas (he has since moved to Boulder), and there is a strong following of perhaps several hundred members in the state.

 $^{^{26} \}underline{\text{http://www.santafenewmexican.com/news/business/city-looks-to-give-community-banks-credit-unions-slice-of/article} \ 30e97869-9640-5b34-ae7e-a5dd126e4ed8.\underline{\text{html}} \ 10e97869-9640-5b34-ae7e-a5dd126e4ed8.\underline{\text{html}} \ 10e97869-9640-5b34$

• Move Your Money - The Santa Fe Green Chamber of Commerce spearheaded a "Move Your Money" local initiative on Tax Day this year, encouraging Santa Fe residents to move their day-to-day financial activities, including checking, loans, credit cards, and mortgage, to a local bank or credit union.²⁷ This is important because local banks and credit unions recycle their capital locally—so much so that the probability of a dollar deposited being lent to a local business is three times greater than a dollar deposited in a large, nonlocal bank.

WHAT NEEDS TO BE DONE

Many important tools for local investing that are not being used at all—but could. These include the following:

- Targeted CDs By law, local banks and credit unions must be very conservative with their money, so they are often wary of loaning money to any local businesses without full collateral. A few local banks, however, such as Ithaca's Alternatives Credit Union, have agreed to set up special certificates of deposits that fully collateralize loans to high-priority local businesses. Eastern Bank in Boston has a CD that collateralizes a line of credit to Equal Exchange, a local fair-trade company.
- Investment Coops Coops can be stretched further to become investment vehicles. Coop Power in Western Massachusetts, for example, invests a significant percentage of member capital in supplier businesses. The Northeast Housing Coop in Minneapolis makes it possible for members to invest in low-income housing.
- Donate Locally Charitable giving can do "double duty" if it targets local nonprofits that support local business and local investment. The Twin Pines Cooperative Foundation, based in northern California, has helped set up foundations across the country that support local coops.

- Pre-Purchasing—Under some circumstances, preselling in New Mexico—that is, selling in advance bulk amounts of goods to raise capital for investment—might not be regarded as a security. Hence, Awaken Café in Oakland, California, raised most of the \$100,000 it needed to open a new store by pre-selling coffee. Credibles, a pre-selling website for small food businesses, provides pre-selling opportunities for New Mexico food businesses. Greg Menke at the Beestro in Santa Fe has done this through what he has called "his sidewalk pitch," creating two new enterprises next to the Beestro.
- Investor Networks The Local Investment Opportunities Network (LION) of Pt. Townsend, Washington, brings together local investors and businesses each month to establish "preexisting relationships" that facilitate the circulation of business plans. New LIONs are spreading around the country. Unlike traditional angel investor networks, where entrepreneurs present their business plans at periodic dinners, LIONs often involve unaccredited (non-wealthy) investors. These should be set up in Santa Fe.
- Investment Clubs Investment clubs allow small groups of investors
 to put money into businesses as a group. Drew Tulchin of UpSpring,
 for example, is currently organizing a local club that focuses on local
 investment. One very profitable investment so far is Meow-Wolf, "an
 arts production company that creates immersive, multimedia experiences that transport audiences of all ages into fantastic realms of
 storytelling."²⁸
- Foundation Impact Investing By law, foundations must give away at least 5% of their assets each year. The other 95% is typically invested in distant stocks and bonds. The IRS has long had an investment category for foundations known as Program Related Investments (PRI). If an investment furthers the mission of the foundation, PRI's allows it to invest in private for-profit or non-profit companies and apply any losses from such investments against its annual grant giving obligations. Some Santa Fe's foundations have initiated a project to explore PRI investing.

²⁷ http://www.santafenewmexican.com/news/business/green-chamber-urging-residents-to-use-local-banks-credit-unions/article 1574f0b2-0b27-57d2-a94c-1aac7dd8512e

²⁸ https://mixsantafe.com/sponsor/meow-wolf-2/

Through the New Mexico Impact Investing Collaborative and the New Mexico Association of Grantmakers, workshops are available for local foundation boards and investment advisors to better understand this opportunity to expand the impact of their mission. New Mexico foundations also are beginning to explore the potential of moving more of their assets (not granting funds) into local impact business.

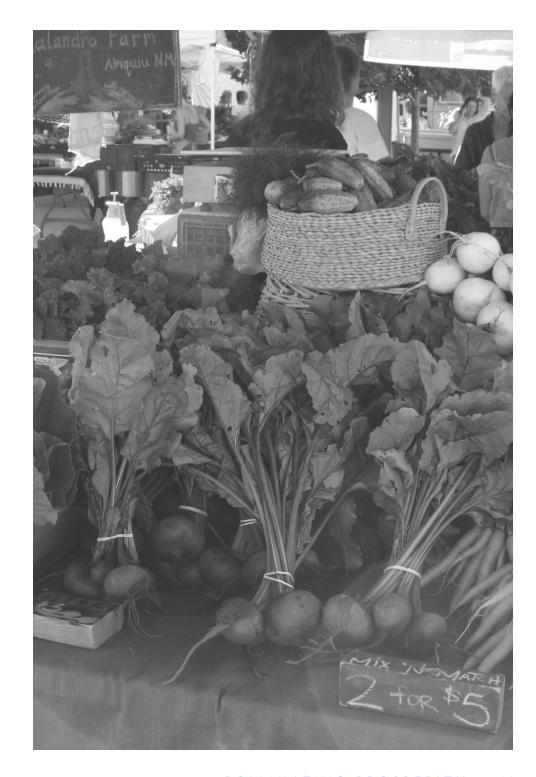
- Slow Munis The City and County of Santa Fe each issue bonds all the time, often to support economic-development projects, but they have yet to issue bonds to finance local businesses. They should. This could be a way to expand the Verde Fund, for example, or launch a land trust to stabilize rents for affordable housing, or invest in seed funding for enterprise pollinators (see below). Properly structured, the interest from these bonds could be tax exempt, and these bonds could be purchased by residents. New websites like Neighborly are helping cities to issue micro-targeting bonds (for "the zoo," rather than for "public works") to facilitate such investments.
- Local Stock Market As crowdfunding spreads, a growing number
 of local stock purchasers will want to sell their shares. Santa Fe
 should set up a site to facilitate such resale. The state of Michigan recently passed a law to set up a state exchange.
- Local Investment Funds While New Mexico has a few local investment funds (noted above), they are largely closed to unaccredited investors. For the average investor, shopping around for local investments one at a time is difficult, time-consuming, and often risky—most unaccredited investors prefer to put their money in an expertly managed pool.

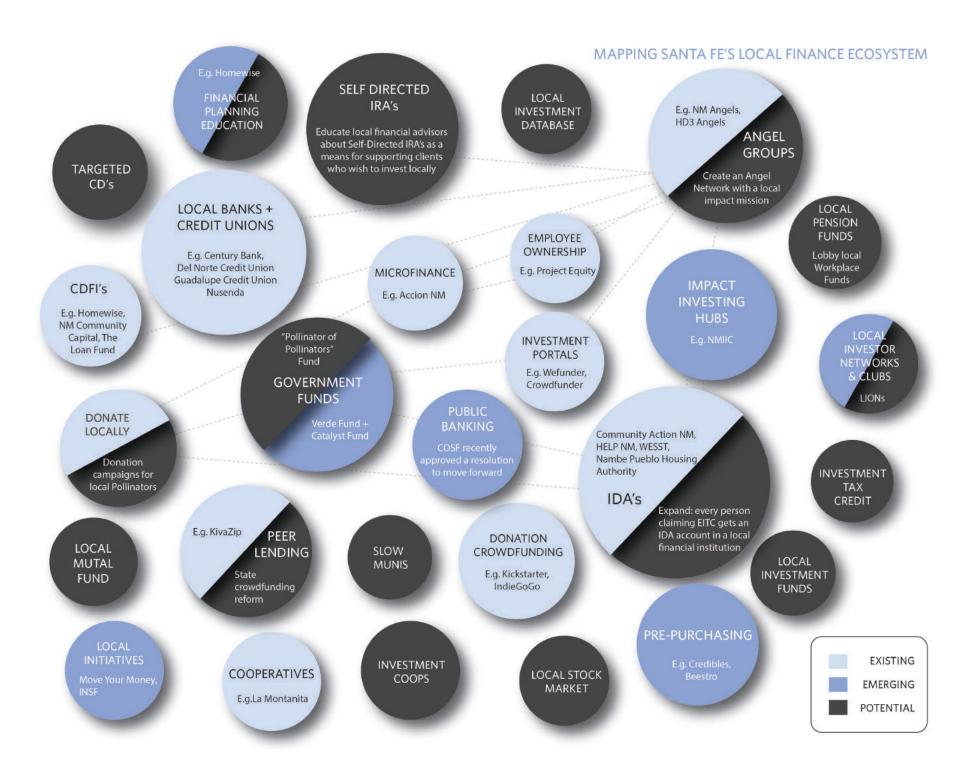
There are models that allow unaccredited investor participation, such as MountainBizWorks in North Carolina, the New Hampshire Community Loan Fund, and ECDI in Columbus, Ohio. These funds demonstrate that it's possible to create non-profits that can take money from all kinds of unaccredited, local investors and then use the funds to grow local business.

- Create a Local Mutual Fund There are 7,500 mutual funds in the United States (in which unaccredited investors can readily invest), but not a single one invests in local small business. That said, there is no legal reason why a locally focused mutual fund could not be formed. The toughest requirement for mutual funds is that 85% of the fund be liquid, and that could be accomplished through local "slow munis." The other 15% could be local stock. Santa Fe could be the first community to establish such a fund.
- Lobby Your Pension Fund In the absence of local pension funds, Santa Fe residents can lobby workplace pension funds to put some money in local stocks and bonds. Some managers of these funds will claim—incorrectly—that local investment is illegal under ERI-SA (The Employee Retirement Income Security Act of 1974). They need to understand that many of the local investments outlined here outperform the U.S. stock market, and therefore are completely legitimate investors for fiduciaries managing these funds.
- Community List Knowledge is power. A regularly updated list of local investment opportunities organized by the city and county could help local investors discover promising investment opportunities.

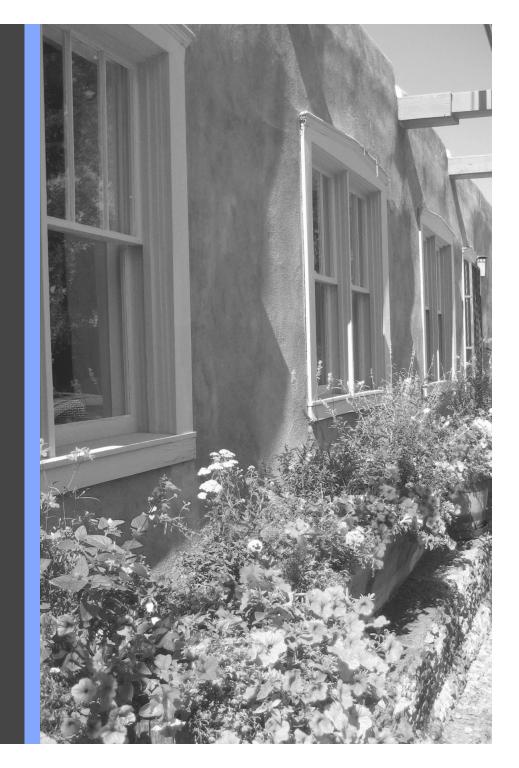
- Get Residents to Rethink Their Finances There's a widespread mythology, spread by the investment industry, that patiently leaving one's money on Wall Street will generate the best returns for retirement, college, or other long-term needs. In fact, far better returns often can be achieved through investing in one's own home, in energy efficiency measures, and in one's own education. And the single best way to localize your money and improve your rate of return is to wean yourself off credit cards. The city and county of Santa Fe should be educating low-income residents about these financial strategies.
- Crowdfunding Reforms Since the JOBS Act was passed in 2012, permitting national crowdfunding, more than thirty states have passed reforms to make it easier for their residents to invest (intrastate) in local business. New Mexico has tried twice to pass such a law and failed. It should try again.
- Investment Tax Credit One way to incentivize residents to take advantage of existing tools (and to advocate more tools) is through an investment tax credit. The Canadian Province of New Brunswick recently passed a law providing a 50% provincial tax credit for every local investment of more than \$1,000. Santa Fe County should press the New Mexico state legislature to pass a similar law.

In summation, a graphic map of the local finance ecosystem, of what has been done locally and what more needs to be done, is offered on page 47. The areas in light grey map existing efforts, the areas in blue map where emerging efforts are showing up, and the dark grey areas indicate potential ideas for where new efforts to grow the local finance ecosystem can be targeted:





O4
APPROACH



Finance is just one of the essential ingredients for successful local economic development. We believe there are six, each beginning with the letter "P".

PLANNING—Based on leakage analysis and other studies of "place", what are the best opportunities for starting and expanding locally owned business?

PEOPLE—How can entrepreneurs be trained and mobilized to lead new or expanding local businesses?

PARTNERS—How can local businesses collaborate so that they operate more effectively as a reciprocally beneficial, value-adding team than they would by themselves?

PURSE—How can local capital be reinvested in new or expanding local businesses with beneficial impact on the community?

PURCHASING—How can local purchasing power be mobilized to fortify local businesses?

POLICY—How can public policies be framed to eliminate the barriers many local businesses face competing fairly against global companies and incentivize entrepreneurship and local investment?

Smart economic development departments try to do work in all these areas. But in relatively small cities like Santa Fe, economic developers soon find themselves overwhelmed by the huge potential number of tasks in each category. One solution is to facilitate the creation of self-financing businesses in the private sector that carry out these tasks. We call these businesses "pollinators." ²⁹

Pollinators can help Santa Fe County to undertake significantly more economic development at a lower cost. Just as bees exchange the appropriate generative pollens to plants and thereby create a healthy ecosystem, business pollinators exchange the appropriate know-how to enable local business to achieve viability and create a healthy entrepreneurial ecosystem. And just as bees do what they do naturally, so do business pollinators—that is, they are able to self-finance their work just like other businesses. While public funded economic development programs are vulnerable to budget cuts and changes in leadership, private pollinators can continue doing their good work as long as there is a "market" for their services. Some pollinators are for-profit businesses, some are nonprofits, but all of them allow a community to undertake key economic-development functions with far greater efficacy and at a substantially lower cost than typical, taxpayer-funded programs.

Santa Fe County, it turns out, is already a region rich in pollinators. We have already elaborated what is happening in the universe of "purse" pollinators in the previous section. Below we cite what is being done and what could be done in four of the other five categories. (Policy is not discussed, since it must be carried out, not by private businesses, but by public entities.)

²⁹ The concept is elaborated in Michael H. Shuman, The Local Economy Solution: How Innovative, Self-Financing "Pollinator" Can Grow Jobs and Prosperity (White River Junction, VT: Chelsea-Green, 2015).

PLANNING POLLINATORS

Definition: Local economic development benefits from both "spatial" planning undertaken by urban planners (which creates great "places" in which local businesses thrive) and "business" planning undertaken by consultants (which improves the locally valued competitiveness of local businesses).

NONLOCAL EXAMPLES:

- Business Efficiency The Main Street Genome Project analyzes
 data from local businesses to help them identify weak spots and
 remedy them by, for example, getting better prices from suppliers and sharing the savings with clients. www.mainstreetgenome.com
- Green Design—Bazzani Associates brings old buildings back to life with green designs and has revitalized several neighborhoods in Grand Rapids, Michigan. www.bazzani.com
- Placemaking—The Village Well, based in Melbourne, is hired by public and private property owners to help stakeholders set in motion a plan to revitalize a place with many new kinds of work and play. www.villagewell.org

- Santa Fe is home to a number of successful green builders and placemakers who have creatively tried to redevelop various portions of the city, with sensitivity to the City's history, culture, and environment.
- There is no company like Main Street Genome operating to increase the efficiency of Santa Fe small businesses, but should be.

PURCHASING POLLINATORS

Definition: Purchasing refers to buying by nearby consumers, businesses, and government agencies. More local purchases multiply through other local businesses and can generate increased income, wealth, and jobs.

NONLOCAL EXAMPLES:

- Coupon Books—The Chinook Book, active in a half dozen cities, enables consumers to buy a book of coupons worth thousands of dollars of savings at local businesses. www.chinookbook.net
- Local Business Magazines—Edible Communities is a magazine design, currently licensed in 85 cities across the United States, raises consumer awareness of local farmers and local food businesses and is underwritten primarily by local advertising. www.ediblecommunities.com
- Local Web Marketplaces—ShopCity licenses a web platform to three dozen American and Canadian cities that draws consumers to great local goods and services. www.shopcity.com
- Local Debit Cards—Bernal Bucks in San Francisco has partnered with its local credit union to issue a debit card that rewards local business purchases. www.bernalbucks.org
- Local Gift Cards—Tucson Originals provides foodies an easy "stocking stuffer" to buy for friends and relatives that ultimately can be redeemed at local restaurants. www.tucsonoriginals.instagift.com
- Local Loyalty Cards—Supportland has 80,000 users in Portland, Oregon, who receive gifts and discounts for loyally making purchases at local stores and service providers. www.supportland.com

- Santa Fe enjoyed one of the first models of a local debit card, Locals Care, about a decade ago. The model ultimately did not succeed, but its lessons were learned by some of the successful models in other communities mentioned above. It's time for another effort around a local debit, gift, or loyalty card in Santa Fe.
- Santa Fe does have a successful *Edible* magazine, which also puts out a periodic *Eat Local* guide.
- There are several initiatives in Santa Fe County to mobilize major institutions, like the hospital and the schools, to purchase local food and supplies. The County is pressing filmmakers to use local vendors. Most of these efforts, however, have thus far not embraced a pollinator business framework.
- The Santa Fe Community College (SFCC), in collaboration with Ecoponex, a for profit, non-local startup, is in the process of developing a company that will hydroponically grow and deliver fresh produce and fish to Santa Fe Public Schools and a few participating local restaurants. The food waste from the schools and restaurants will be collected and recycled through a bio-digester at SFCC, which will then produce the needed energy and nutrients for growing the fresh food locally, year around. Local impact investors are currently being recruited to underwrite this pollinator.

PEOPLE POLLINATORS

Definition: People are the human factor in local business development, including entrepreneurs, employees, and economic developers. The future of the Santa Fe economy is only as good as its businesspeople, so it's essential to figure out ways of strengthening them.

NONLOCAL EXAMPLES:

- Enterprise Facilitators The Sirolli Institute, based in Sacramento, has helped 300 communities worldwide deploy "enterprise facilitators" that transform local entrepreneurs with great ideas into successful businesspeople. www.sirolli.com
- Local Economic Developer Training—Simon Fraser University in Vancouver runs a successful "adult education" course that teaches development professionals how to do local economic development. www.sfu.ca/cscd/professional-programs/community-economic-development.
 html
- Youth Entrepreneurship Schools— Fundación Paraguaya now runs three
 high schools in Paraguay that pay all their expenses through the revenues generated by student-run enterprises, and is working with another organization based in the United Kingdom, Teach a Man to Fish, to
 spread this model worldwide. http://www.teachamantofish.org.uk/
- Short Entrepreneurship Courses—ZingTrain, part of the Zingerman's Community of Businesses in Ann Arbor, Michigan, provides training through two or three-day courses to more than one thousand entrepreneurs each year. www.zingtrain.com
- Maker Spaces Maker-Works, also in Ann Arbor, educates its members on how to use advanced industrial tools to make cutting-edge products. www.maker-works.com
- Co-Working Spaces—The Impact Hub represents a worldwide network of 63 spaces where social entrepreneurs can work and cross-pollinate shoulder-to-shoulder with like-minded people. www.impacthub.net

- Incubators—The Northwest Regional Planning Commission in rural Wisconsin runs a network of ten small business incubators over an area of 11,000 square miles, with "circuit riders" who move from site to site and provide various forms of technical assistance. www.nwrpc.com
- Accelerators Each year the Seattle-based Fledge leads three cohorts
 of promising local entrepreneurs through intensive trainings, and pays
 for its work through modest royalty payments from its graduates.
 www.fledge.co

- About a decade ago, the Sirolli Institute undertook projects in Albuquerque, Deming, and Taos, and the Albuquerque project continues as a program called STEPS.
- Fort Sumner has a high school that took over a greenhouse and works in a business framework.
- There are a rich assortment of entrepreneurship courses and programs in the area, most of which are supported by government agencies and foundations. Among the key supporters are the Small Business Administration (SBA), Small Business Development Centers (SBDC), SCORE, BizMix, the Women's Economic Self-Sufficiency Team (WESST), the Coronado Ventures Forum, the Santa Fe Art Institute, and various community colleges.
- Santa Fe has a number of business incubators. Santa Fe Business Incubator has already graduated 30 businesses. Another at Santa Fe Community College houses half a dozen green, high-tech startups. These incubators have yet to incorporate a self-financing model.
- Missing from the entrepreneurial ecosystem are maker spaces.

PARTNERSHIP POLLINATORS

Definition: Partnerships means collaborations of, by, and for local businesses. When local businesses work together, they can lower costs, expand markets, attract investment, and engage in more complex businesses.

NONLOCAL EXAMPLES:

- Joint Support—Local First Arizona has grown to be the largest BAL-LE network in the United States (with 2,600 businesses) by providing members with technical assistance, peer support, and effective buy-local campaigns. www.localfirstaz.com
- Joint Advertising—The Calgary-based organization REAP (standing for Respect the Earth and All People) directs consumers to local ethical businesses through ads and an online directory, and finances its work by positioning itself as a one-stop marketing firm for its 120 business members. www.reapcalgary.com
- Joint Purchasing Tucson Originals (noted above) negotiates discounts from "preferred" local suppliers that all its food-business members can enjoy.
- Joint Delivery—Small Potatoes Urban Delivery directly delivers the products from small farmers and local food processors to locavore households in six metro areas in North America. www.spud.com
- Joint Selling— The Reading Terminal Market is one of a growing number of permanent "public markets" that are effectively shopping malls for local food providers, local artisans, and other local businesses. www.readingterminalmarket.org

- Santa Fe had a local business alliance for more than a decade that never developed a successful revenue model. After trying to deploy the Locals Care card, the network worked on a local food delivery system. Neither succeeded, but the efforts did inspire successful successor efforts. Some of the functions of the local business alliance have been absorbed by the Green Chamber of Commerce. And a local entrepreneur developed a local food delivery company called Squash Blossom, whose mission "is to provide a dependable income stream for local farmers, bring healthier food to our community, and strengthen our local economy."
- More broadly, however, there are no existing efforts around joint advertising, joint purchasing, joint delivery, and joint selling.
- Local Farmer's Markets, the Farmer's Market Institute and Farm-To-Table are all active, value-adding organizations in the local food sector that could benefit from a pollinator development strategy.

THE NEXT GENERATION OF POLLINATORS

In the discussions with various local economy leaders, several new pollinator ideas emerged that are worth mentioning:

- Timothy Keller, the New Mexico State Auditor, recently released a study on the degree to which state and local government agencies are not buying local goods and services.³⁰ It reviewed \$1.3 billion of public procurements. It found, that 66% of food purchases are being made out-of-state, 77% of medical supply purchases, and 81% of IT purchases. Shifting just a small percentage of these purchases to in-state suppliers could have a huge positive impact on the New Mexico economy. A promising pollinator model might help small businesses navigate the labyrinth of government bidding rules, and then take a small percentage of winning contracts.
- The Green Chamber of Commerce has been leading a "Green Lodging Initiative" in which it is identifying new opportunities for improving the sustainability practices of two-dozen local hoteliers and increasing their competitiveness through collaboration. It recently has been analyzing what inputs participants are purchasing non-locally, and among the surprising discoveries were non-local toilet paper and foodstuffs. One could imagine the Green Chamber organizing a pollinator such as what Tucson Originals did, where hoteliers were able to localize cost-effectively through collective bulk purchases. The costs of the programs could then be covered with dues or finders fees.
- After preparing an analysis for the City of Santa Fe on the virtues of localizing its banking services, Katie Updike has proposed
 that local banks enter into joint evaluations of promising local businesses. This would bring down the due-diligence costs for
 small business loans. The costs of this pollinator could be covered by participating banks. Once formed, perhaps such a consortium of banks could run a local investment portal.

As the City of Santa Fe's recently published "2017 Economic Development Crossroads" report says,

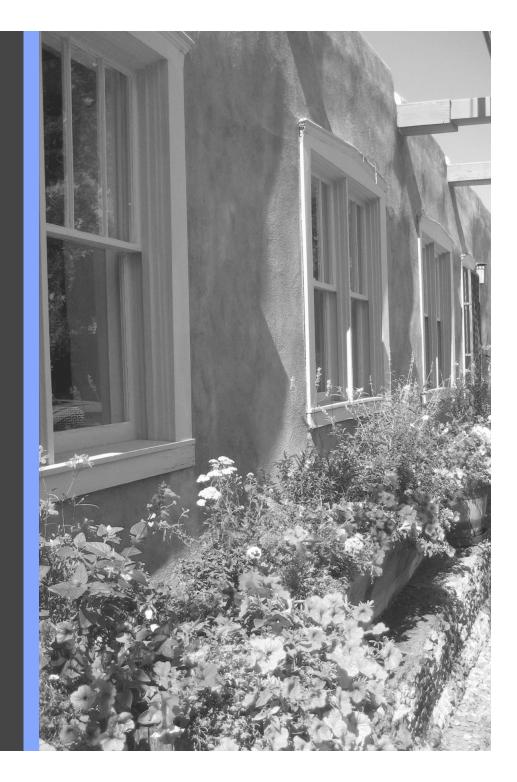
The City of Santa Fe OED [Office of Economic Development] cannot be all things to all people, especially given limitations in budget and staff. This is a fundamental issue.It is time to make hard decisions about where OED should focus its resources and efforts in order to have the greatest impact, especially given its model business of \$1.5 million. An underlying assumption is that it is smarter to do a few things well than many things badly."³¹

The virtue of pollinators is that, once created, they relieve professional economic developers of carrying these responsibilities exclusively. The next question, then, is how OED can best create pollinators?

³⁰ The State of New Mexico State Auditor, "The Myth of Scarcity: Structural Challenges in Economy and Public Funds," February 2017.

³¹ P. 5. http://www.santafenm.gov/economic_development

O5 PATH FORWARD



PATH FORWARD

Economic development is too big, too complex, and too important to remain the province of a small number of civil servants. Important as professional economic developers are, economic development lies primarily in the hands of local entrepreneurs creating or expanding businesses, local business organizations forming action networks, local consumers buying from local businesses, and local investors putting capital into them. Hired economic developers can channel, deepen, and accelerate these market activities, but they are facilitators, not drivers.

Fortunately, economic developers in the city and county of Santa Fe already recognize this. As noted earlier, the city's Office of Economic Development, in its "2017 Economic Development Crossroads," acknowledges that its mission, given limited staff and budget, must be to mobilize others. Throughout this study, we highlighted ways that many players in Santa Fe, inside and outside the economic development establishment, are contributing to important economic-development initiatives. Specifically:

- Unlike the vast majority of cities and counties in the United States, Santa Fe has expressly rejected the expensive
 and counterproductive strategy of "corporate attraction" through financial incentives. Instead, it has kept its focus
 steadfastly on nurturing and expanding local businesses, consistent with the region's aesthetics, culture, history, and
 diversity.
- Many key players in the region's economy agree that Santa Fe cannot continue to depend on a few sectors such as tourism and state government, and that there's an urgent need for economic diversification. This awareness has increased local interest in using leakage analysis to identify priority sectors for expansion.
- Mindful of the need for diversification, many financial institutions already exist or are being launched to mobilize more
 local capital into local businesses, including local banks, credit unions, and funds.
- A number of sophisticated pollinator enterprises have been started and others are being organized, including several business incubators. (Most of these, however, are still struggling to define revenue-earning strategies beyond fundraising.)

These positive activities, however, are really just dots on the canvas. It's now incumbent on the city and county of Santa Fe to fill in the dots with brush strokes and colors. This tapestry needs to be brought to life. Accordingly, we offer five recommendations:

1 INCREASE PUBLIC PARTICIPATION IN ECONOMIC DEVELOPMENT PLANNING

The genius of the city and county of Santa Fe, as noted in Section II, comes from the many cultures that have coexisted for decades, even centuries—among them Pueblo, Hispanic, Anglo pioneers, state managers, farmers, and high-tech entrepreneurs. Unlike what happens in many other communities, these cultures are not homogenizing. They have maintained their distinct character, freely borrowing from one another to create new forms of cultural expression. Economic development in Santa Fe consequently must draw from all these constituencies, and never privilege one group over another. And arguably the best way of doing this is through robust public participation.

We suggest two ways to maximize public participation.

First, the city and county should appoint a joint blue-ribbon panel of local business owners, representing all the key cultural constituencies of the region, along with other key leaders from government, philanthropy, and key nonprofits. The panel's mission should be to produce each year a series of recommendations about initiatives and policies that would be helpful to the local business community. A paid staff person might serve as a coordinator. This panel might arrange monthly hearings where it took testimony about different issues—everything from licensing, permits, taxes, and zoning to place-making, climate change, and schools. It might invite ongoing public engagement online.

Second, the city and county should produce an annual *State of Santa Fe Report* on the overall health of the local economy. This report should be made widely available to residents online and in print. Among the things this report might contain are:

- Key indicators of the region's economic health (see below): Accompanying the indicators would be an assessment of whether progress has been made according to the indicators over the previous year.
- An inventory of key assets in the region: Assets reported on would include not only the traditional economic assets of land, labor, capital, and technology, but also soft assets like culture, health, education, infrastructure, and democracy. Among the assets that should be evaluated annually are the elements of an entrepreneurial ecosystem.
- An updated SWOT analysis of the region's economy: SWOT stands for strengths, weaknesses, opportunities, and threats. An excellent SWOT analysis appears in "2017 Economic Development Crossroads," and it should be updated annually, again with an analysis of what's working and what isn't.
- A list of priority policies: This list would be drawn from the work of the blue-ribbon panel discussed above.

It's worth noting that some of this work is already being done by other grassroots bodies, such as the Santa Fe Commission on Sustainability. But there's value in having a unique entity focused on local economic development. It might be called the Santa Fe Commission on Local Economic Vitality.

2 DEVELOP NEW METRICS CONSISTENT WITH THE THEORY AND PRACTICE OF IMPORT REPLACEMENT

The annual *State of Santa Fe Report* should present new metrics on local business leakage and capital flows. Among the new kinds of indicators that we encourage city and county economic development departments to track carefully:

- What percentage of jobs is in locally owned businesses? What is the median income in locally owned businesses compared to non-locally owned businesses?
- What's the overall level of economic leakage?
- Which sectors are becoming less leaky and which more so? (In other words, which sectors are helping Santa Fe become more self-reliant?)
- How many businesses are embracing any system (such as B Corps or the state's benefit corporation designation) to track and improve their social performance?
- Is the region's current trade deficit shrinking or expanding?
- To what extent is institutional spending, particularly by government agencies, being localized?
- Are there fewer gaps in the entrepreneurial ecosystem? To what extent has the region's equity gap increased or decreased (perhaps measured by relative changes in median income)?
- What percentage of bank deposits is being reinvested in local business? What percentage of pension funds?
- To what extent have the region's financial, natural, social, human and built capitals increased or decreased?

Some of these indicators can be constructed with readily available data. Others will require the city and county to develop new data. In our view, investing in appropriate yardsticks will help ensure that Santa Fe's economy moves in the right direction.

3 MOBILIZE MORE RESIDENTS TO INVEST LOCALLY

One essential key to increasing the vitality of the Santa Fe economy is to greatly increase the level of local investment in new and expanding local businesses, mindful wherever possible that these businesses be locally owned, import-replacing, and in synch with local natural resources. Much of the commendable experimentation that has been done in recent years has expanded investment options for the 1-2% of the population that is wealthy (i.e., "accredited" investors). What's needed now are new experiments to involve and engage 98-99% of investors who are "unaccredited."

One easy and inexpensive innovation that the city and county of Santa Fe might take is to create an online listing of all local investment opportunities in the region. By providing only information about investment opportunities—and not facilitating any transactions—this site could stay within the bounds of securities law. The site might also maintain a list of every bank, fund, and other institution involved in local investment. And it might provide a list of contacts for unaccredited investors to set up self-directed IRAs or solo 401ks to move tax-deferred savings into local businesses.

To manage this listing, we recommend that the city and county consider jointly hiring a local investment officer. Besides overseeing the website, this individual might try to launch and support initiatives to fill in the many gaps in the existing investment ecosystem. For example, he or she might recruit an entrepreneur set up a local investment portal for New Mexicans. He or she might prepare educational materials and programs for local investors. And he or she might convince the state legislature to create a local investment tax credit.

ORGANIZE EVERY BUSINESS SECTOR TO DEVELOP STRATEGIES FOR IMPORT REPLACEMENT

As noted, the Green Chamber of Commerce is now engaging the hospitality industry to develop very specific import-replacement strategies. This involves reviewing carefully the purchasing and investment habits of existing companies, and applying all the strategies discussed earlier for reducing imports. Similar initiatives are needed in every major industry in Santa Fe. We encourage the city and county to award grants to organizations, including professional associations, prepared to carry out this work. Wherever possible, moreover, the grants should encourage recipients to promote not only import-replacement but also the use of local food, energy, and other natural resources.

5 CREATE A FUND THAT POLLINATES POLLINATORS

All the recommendations above are relatively inexpensive. They easily could be done within the existing budgets of the city and county economic development offices. But none of these initiatives quite answer the question of how to expand the quantity and quality of economic development work through new or better pollinators. For this mission, we recommend the establishment of a new, dedicated fund.

By definition, pollinator businesses are those entities that can exert significant leverage over the quantity and quality of economic development in Santa Fe. Incubators, maker spaces, buy-local debit cards, local investment portals, and so forth all have the capacity to support a wide range of import-replacing local businesses. Every dollar invested in pollinators like these has the potential to multiply into many new dollars locally. But because these pollinator business models are relatively new, finding conventional investors to support them is challenging. Public funds that seed their start-up phase could make a huge difference.

As noted earlier, the city of Santa Fe is currently developing an entity called the Verde Fund that could be shaped to serve this vision. But like any ongoing project, its supporters already have specific purposes in mind for its resources. We therefore recommend that it establish a new fund.

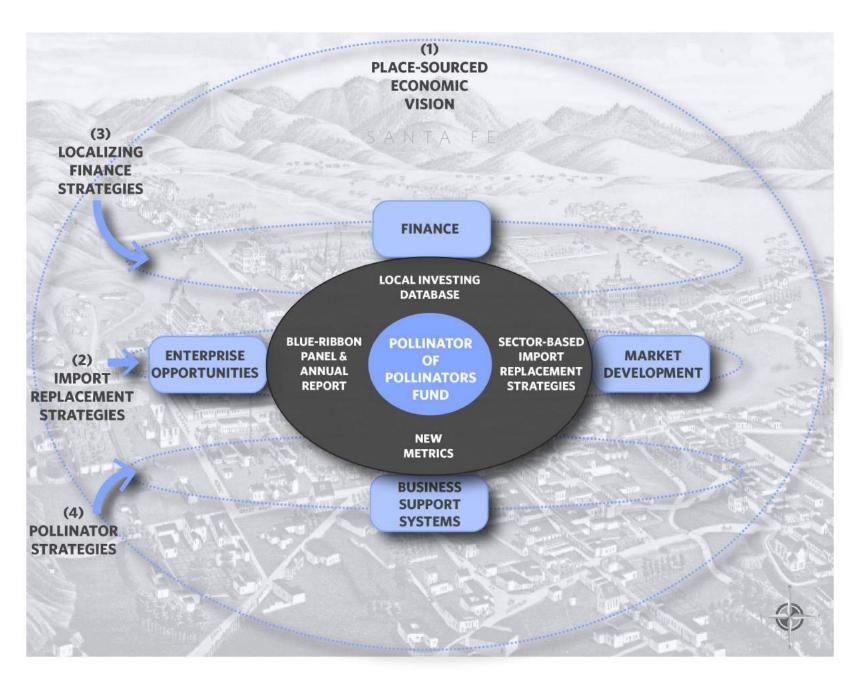
Working together, the city and county of Santa Fe might put together a \$20 million fund that placed startup investments (equity, loan, or royalty) into promising pollinator businesses. Those pollinators that could demonstrate creating the most economic benefit for each dollar invested would receive the highest priority. Since pollinators, by definition, are self-financing, it's appropriate to seed them with investments rather than grants. And the success of early pollinators can beget the surplus revenues that support later ones. A fund like this would serve as a magnet for creative thinking from all kinds of entrepreneurs in and around Santa Fe.

Where might \$20 million come from? The anchor investment might come directly from the city and county—perhaps \$1 million per year from each for five years. Some might come from the endowments of major institutions in the region like hospitals, universities, and foundations. Some might come from individual investors. The remainder might be financed by municipal bonds preferentially sold to New Mexicans through a web site like Neighborly. Many New Mexicans might jump at the opportunity to invest \$100 or more in Santa Fe's future.

It's worth underscoring that this proposal fits, hand in glove, with "principles" embraced by the city of Santa Fe Office of Economic Development (OED). Among those articulated in "2017 Economic Development Crossroads":

- "Achieve ED goals by supporting organizations that carry out the day-to-day work."
- "Be as entrepreneurial as the companies we support."
- "Fund pilot programs to test new approaches."
- "Focus on 'what chose us' (bottom-up) rather than what we might choose (top-down) when looking to support industries or opportunities."
- "Value the City's role as a convener."
- "Have a bias towards a 'grow your own' approach to the economy..."

The main point of establishing a fund for pollinators is simple: Rather than use scarce economic-development dollars to promote local businesses, one business and one job at a time, invest in programs that will nurture multiple import-replacing and earth-based natural system businesses. Even Aladdin understood that the best way to use his three wishes was to invest one wish in more wishes.



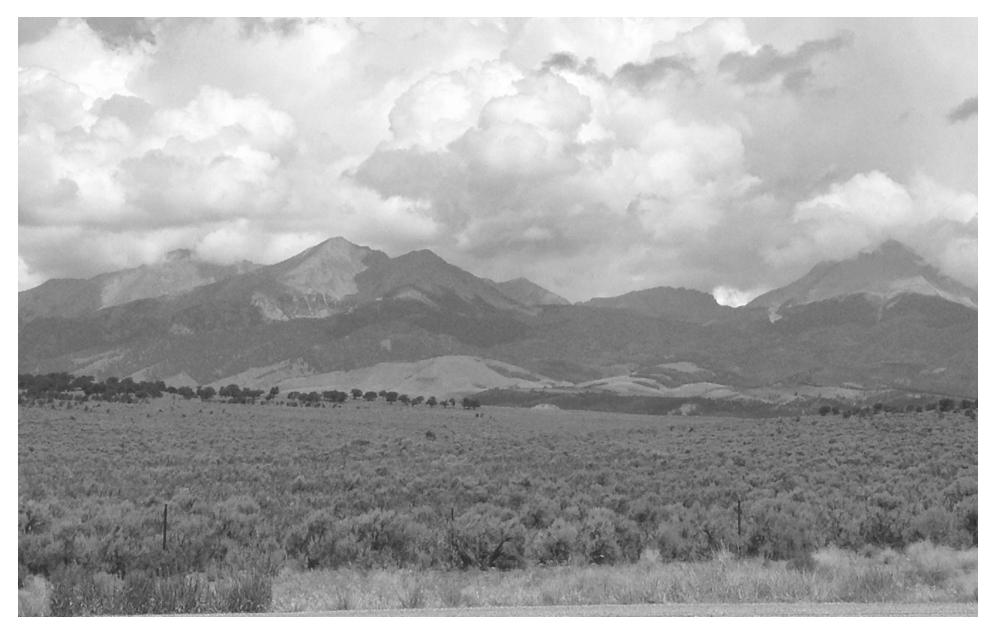
APPENDIX

CONTRIBUTORS TO THIS REPORT



PROJECT STAKEHOLDERS

First and foremost, we would like to thank all the community stakeholders who participated in this project, and without whom this project would not have come to fruition. The list is too long to name here, but you know who you are, and we offer you our sincere gratitude for all of your generous time, energy, and support.



THE AUTHORS

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Shuman has authored, coauthored, or edited nine books. His most recent book is *The Local Economy Solution: How Innovative, Self-Financing Pollinator Enterprises Can Grow Jobs and Prosperity* (Chelsea-Green, 2015). One of his previous books, *The Small Mart Revolution: How Local Businesses Are Beating the Global Competition* (Berrett-Koehler, 2006), received as bronze prize from the Independent Publishers Association for best business book of 2006.

A prolific speaker, Shuman has given an average of more than one invited talk per week, mostly to local governments and universities, for the past 30 years in nearly every U.S. state and more than a dozen countries.

Shuman has written nearly one hundred published articles for such periodicals as *New York Times, Washington Post, Nation, Weekly Standard, Foreign Policy, Parade,* and *The Chronicle on Philanthropy.* In 1980 he won First Prize in the Rabinowitch Essay Competition of the *Bulletin of the Atomic Scientists* on "How to Prevent Nuclear War." Shuman received an A.B. with distinction in economics and international relations from Stanford University in 1979 and a J.D. from Stanford Law School in 1982. Between 1987 and 1990 he was a W.K. Kellogg National Leadership Fellow. He is also a member of the State Bars of California and the District of Columbia.

NICHOLAS MANG is a community development consultant, educator, and impact investor focused on innovating holistic, cross-sector strategies for regenerating local economies, cultures, and ecologies of place. He is founder and co-executive director of Story of Place Institute (a non-profit 501c3), a principle consultant at Regenesis Collaborative Development Group, and director of Jessica's Love Foundation.

Nicholas has over twenty years of work experience in communities across North America, organizing and facilitating community redevelopment initiatives. Current work projects include Impact Network Santa Fe, focused on developing a community impact network dedicated to building shared learning, information, capacity, and collective strategies for growing a more robust local impact economy in the Santa Fe region.

Educational experience includes masters and doctoral level work in education, cross-cultural studies, living systems thinking, social transformation theory, ecopsychology (the bridge between psyche and ecological place), and spiritual psychology. He has a BA in cross-cultural studies from Stanford University and a Masters and PhD in psychology from the Institute of Transpersonal Psychology and Saybrook University (respectively). His doctoral dissertation is entitled "Toward a Regenerative Psychology of Urban Planning."

In addition to these formal degree programs, Nicholas has had extensive organizational systems training and work experience through the Institute for Developmental Processes. Training experience includes the design of leadership development processes, the facilitation of place-based visioning processes, the coalescing and evolving of group critical thinking processes, and the development and use of systemic frameworks.

PROJECT RESEARCH TEAM

CHRISTINE SNYDER is a cultural anthropologist and communal systems analyst. She has over a decade experience working in and with communities to understand the relationships and mechanisms that foster emergent social systems. Christine's skill set includes ethnographic fieldwork and data compilation and interpretation; small business conception/development with "cultural entrepreneurs" (those whose business endeavors intersect with the enactment of cultural practice); community organization around arts and cultural entrepreneurship; mediation between community members, across cultural or institutional divides; and, presentation event coordination. She has undertaken projects with the Arts Alliance (Albuquerque), City of Santa Fe Arts Commission, Global Center for Cultural Entrepreneurship, Santa Fe International Folk Art Market, and Story of Place Institute.

ADRIANE ZACMANIDIS is a whole-systems strategic designer and planner who has worked for the past 24 years in the fields of Design, Cultural Heritage, Community Planning + Engagement, and Education. Utilizing a holistic approach, Adriane works to find regenerative solutions to issues surrounding community and place. Weaving emergent technologies and design thinking throughout her practice to help lift up voices to convey the complex stories and issues facing today's diverse communities. Adriane continues to work as an educator both formally with universities and K-12 schools, and informally with cultural institutions. She is the principal owner of Kronosphere Design LLC, and a founder and co-executive director of Roots to Change 501c3, and Research Faculty at the University of New Mexico.

JOEL GLANZBERG contributes over 25 years' experience as an applied naturalist to land, community, and economic development projects throughout the United States. Through assessing, understanding, and communicating the inherent patterns present in natural systems, Joel helps clients identify principles and guidelines for appropriate and healthy development. Joel has worked for a diverse client base, including communities, colleges and universities, government agencies, and private developers. Recent projects include a new student campus for the Winston Preparatory School in Norwalk, Connecticut and a regional economic sustainability planning project in the Finger Lakes region of New York.

ROBERT MANG is the principal owner of Regenesis, LLC, a Santa Fe development company. He co-founded the Regenesis Group, an international consulting company to developers, also located in Santa Fe. In a civic capacity, Bob is currently a board member of the Santa Fe Green Chamber, and also has served on the Board of Conservation Voters of New Mexico Education Fund and New Voice of Business, a national business organization. He has served as a founding Board Member of 1000 Friends of New Mexico, Partnership For Responsible Business, and SCI/ZERI, a Santa Fe based sustainable communities organization. He has authored a number of articles on community and ecological development.



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